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Readings in Social Psychology

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Readings in Social Psychology

Prepared for the Committee on the Teaching of Social Psychology of The Society for the Psychological Study of Social Issues

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Preface

THE aims of this volume

Teachers of social psychology have for some years been finding that their problems were increasing *pari passu* with the development of their field. They have been forced to take account of recent advances in such diverse fields as ethnology, statistics, clinical psychology, and psychiatry—fields which, a few short student generations ago, would have been thought of as belonging to other disciplines. At the same time, paradoxically enough, they find themselves increasingly self-conscious about having a discipline of their own. New sources of evidence and new tools of research, instead of forcing the social psychologist into a centrifugal whirl, have helped him to bring into clearer focus his own function. It is the peculiar province of the social psychologist to bring to bear upon his study of the behaving organism all relevant factors, from whatever sources and by whatever methods ascertained, which inhere in the fact of association with other members of the species. Most of these factors in the case of human beings have to do in some way with membership in groups.

Our aim in preparing this volume has therefore been to present illustrative selections of the ways in which the influence of social conditions upon psychological processes have been studied. Since we have tried to keep in mind the needs of student and teacher, we have deliberately sacrificed representativeness for what we hope will prove to be usefulness. We make no claim to have "covered the field." Many teachers will find that certain areas have been omitted entirely. We have, for example, included nothing in the field of animal social psychology. There is no section labeled "Personality," though many readings in other sections deal with social influences upon personality. The topic of delinquency and crime has been omitted altogether. The "great names" in the history of social psychology are not represented; we have not included selections from Tarde, Le-Bon, James, Cooley, McDougall, Ross, or Freud because their writings are elsewhere available, because brief passages from them are rarely satisfying, and because we have preferred to stress reports from the more recent period in which social psychology has come of age. We have also eschewed all discussions of the nature of the field of social psychology.

Editorial responsibility

Matters of policy by which the selection of readings in this volume was determined represent not merely our own predilections. Every major problem of policy and of selection has been referred to the Editorial Committee, and the original outlines have been many times revised at their suggestion. The specific selections included, as well as the policies by which their choice was determined, represent in nearly every case an editorial concensus. The Editorial Committee has performed far more than a nominal function. The original list from which nearly all the finally selected readings were chosen was submitted by them, and most of the proposals for revising and supplementing the early outlines came from them rather than from us. Though we have consulted them at every point except where last-minute decisions had to be made, they have granted us freedom of action whenever we thought we needed it. The general complexion of this volume, in short, reflects the wishes of the Editorial

Committee, but for many of its details the responsibility is ours.

For many reasons we have imposed heavier burdens upon some editors than upon others. Gordon W. Allport has been indefatigable both in initiating proposals and in complying with a wide range of requests. Margaret Mead, with help from Clyde Kluckhohn, has served as "consulting expert" concerning ethnological materials. By relying upon her judgment rather than solely upon our own, we believe that many of the selections in this area have been more wisely made than they might otherwise have been. The section on Industrial Morale is very largely the work of Arthur W. Kornhauser. Goodwin Watson has been our principal adviser for the section on Mass Communication and Propaganda, and Daniel Katz for that on Public Opinion. Eli S. Marks has performed invaluable service in preparing the statistical appendix, under cruel limitations of time.

We are happy to include several original contributions, prepared especially for this volume. In some instances these are newly prepared versions of research previously reported; some are anticipatory versions of fuller reports that will be made later. To these authors, whose contributions in terms of time have been very great, we are particularly indebted. We are especially fortunate in having one of the last articles to come from the pen of Kurt Lewin, whose name we have kept on the list of editors in spite of his untimely death just as this volume was going to press.

How to use this book

This book, as "an illustrative selection of empirical studies and of approaches to problems which may supplement systematic presentations and conceptual formulations," does not attempt to provide an over-all theoretical framework for the materials of social psychology. It can be only a supplement to and not a substitute for the continuity and systematization to be found in the standard textbooks, or which may be provided by a series of lectures by a single individual.

There are sixteen major sections, each of which includes a number of specific readings. Though each selection included has merit, though each major section is important, we have included more material than is usually assigned as required supplementary reading in a one-semester introductory course in social psychology. This makes it possible for the instructor to "tailor" his assignments to his students by omitting whole sections, or by reducing the number of readings required in those sections where he feels that more than enough is provided.

Each selection in the volume is reprinted as a unit, and there is practically no "connective tissue" provided by the editors. We have resisted the pressures (and, shall we confess, the temptations) to provide such textual continuity, recognizing that many instructors will wish to adapt the material not only by the deletions suggested above, but also by modifying the context in which single readings or whole topics are considered or by shifting their order. The sequence of the major sections and the ordering of the readings within the sections represents the orientation of the editors, but those who use the book are by no means bound to follow the order as presented. To provide better integration with a particular textbook or lecture sequence, an instructor may choose to recommend readings in almost any order he finds preferable. It may prove desirable to change the order of the major sections or of the assignment of readings within sections. Also, we should like to call attention to the possibility of cross-referencing the readings to reinforce one another or to establish new major units. (For example, should it be desirable to consider the material on "race" and "race prejudice" as a unit, there could be brought together the materials by

Klineberg in section I, Marks in section II, the Clarks in section III, Hayakawa and Katz and Braly in section IV, some of the frustration and aggression materials from section VI, Sims and Patrick in section VII, Fromm in section IX, Allport and Postman, and Sargent in section XIII, as well as the material in section XII.) Many of the readings could have been classified in any one of several sections, and the instructor may well desire a specific selection to be read in a context other than the one in which it appears here.

We emphasize the flexibility with which the materials of this volume can be used because of our conviction that nearly all teachers of social psychology, no matter how much they may differ in theoretical interpretations, have in common the need for reports of well-designed, objectively conducted, empirical studies. Theoretical controversies and differences of opinion apply to the context in which one chooses to consider the materials and the details of how the findings are to be interpreted. Fundamental theory is of paramount importance, of course, in the planning of research and in interpreting data but in the social sciences it is not true, as so many of the uninitiated insist, "that it is all a matter of opinion." The objective studies and empirical investigations cannot be gainsaid.

In the preparation of the selections for inclusion in this volume, we have taken liberties in the case of many of the readings in omitting some of the lengthier discussions of previous work in the field. The footnote references which are included here may be interpreted in accordance with the following principle: the numbered footnotes originated with the authors of the readings; those indicated by a symbol * (asterisk, dagger, double dagger) represent the comments and insertions of the editors.

To help the student who is unfamiliar with the statistical analyses used in the readings here included, an appendix has been prepared which gives the minimal definitions of the concepts used. This will make it possible for the student to read the studies with fair comprehension of their significance. The appendix cannot, of course, substitute for appropriate training in methods of statistical analysis and interpretation so necessary for full participation (even as a reader) in contemporary social psychological research.

Future editions

We have a lively sense of some of the inadequacies of the following selection of readings. There are doubtless other shortcomings to which we hope our attention will be called by those who use it. Both the publishers and the Committee on the Teaching of Social Psychology of the S.P.S.S.I. are convinced that substantial improvements in the present volume are possible if the experience of teachers and students with it is properly exploited. The Committee will therefore not only welcome spontaneous comments and criticisms from those who have used the volume; it also plans to make a systematic inquiry of all teachers known to have used the volume who are willing to express grounds for satisfaction and dissatisfaction. In such manner, we hope to make sure that future editions will not only keep up with current developments but will also meet the changing needs of teachers. We see no reason why social psychologists should fail to apply their own methods to problems which they themselves face as teachers.

June 1, 1947

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Foreword

SINCE its formation in 1936, the Society for the Psychological Study of Socia Issues has undertaken many projects. It has published three yearbooks, in which i has attempted to assemble the best available psychological research and though concerning the problems of industrial conflict, of civilian morale, and of endurin peace. It publishes the quarterly *Journal of Social Issues*, each issue of which i devoted to the presentation and interpretation of research findings in some specia area of human relations. It has subsidized cooperative research among universit centers in this country. It is cooperating in efforts to organize social scientists through out the world who see much to be gained by pooling their efforts to solve commo human problems. It has issued public releases from time to time concerning issue which it believes can be illuminated by psychological understanding.

These activities, however, have left largely untouched that part of the public t which many members of the Society devote the major part of their professiona time—college and university students. As early as 1943 the Society was convince that the teaching of social psychology in this country (much of which was carrie on by its members) was being unnecessarily handicapped by the paucity of teachin materials. Good texts were available; but no text, however good, could adequatel portray the empirical foundations upon which social psychology rests. Even Kimbal Young's *Source Book for Social Psychology*, which did much to define the field i 1927, was no longer representative of the rapidly growing discipline. It was clea moreover, that the library resources of colleges and universities would not be adequat to meet the demands of the increasing numbers of students who would be drawn t social psychology after the war.

A committee was therefore appointed by the Society to investigate ways and mean of providing more adequate teaching materials for students of social psychology Its recommendation was that a volume of readings should be prepared which shoul be, insofar as possible, representative of the reports of research in social psycholog and of the methods by which its conclusions are reached. It was also recommende that the interdisciplinary nature of the field be stressed and that due attentio given to more recent developments, some of which had been stimulated by w esearch. It is perhaps significant that the basic plans for the present volu id by a team of social psychologists while they were engaged in such [illegible] oject in Bad Nauheim, Germany, in the summer of 1945.

FOREWORD

Three necessities: it must adhere to rigorous canons of scientific procedure; it must draw hypotheses from all of the relevant psychological and social sciences; and it must bring such hypotheses and such methods to bear in systematic research upon problems of human importance. This volume is offered as an aid to teachers and students in facing these tasks.

The Society owes a deep debt of gratitude to Theodore M. Newcomb and Eugene L. Hartley, who are primarily responsible for this volume. They have devoted a tremendous amount of time and work to its preparation. The quality of this volume attests the value of their work, that of the Editorial Committee who assisted them, and of the authors who contributed material.

RENSIS LIKERT, President
Society for the Psychological Study
of Social Issues.

death, and superimpose man-made definitions of the life cycle. So among the Todas of India, where one woman is taken to wife by a group of brothers, paternity is established by a ceremony, performed usually by the oldest brother. This ceremony determines the paternity of all subsequent children until a new aspirant to social fatherhood performs the same ceremony in his turn. Children are sometimes considered as the offspring of a man who has been dead ten years. A similar overlay of physical facts, which, though known, go socially unacknowledged, is found in many societies which practice infanticide. The child is not regarded as a member of the social group, simply because it is delivered from its mother's womb. Rather it must wait upon a social recognition of its existence; until that is given, to kill it is not murder. Among the Wotjobaluk tribe of southeast Australia a newborn child was often killed to give strength to an older sibling. The older child was a human being, a member of the group, the newborn baby, material of which alternative disposition might be made. At the other pole are the Manus who give an early miscarriage all the honors accorded an adult. The foetus is named, mourned, and an elaborate economic machinery is set in motion.

As with birth, so with death. In Fiji an old chief whose death has been determined upon is spoken of as dead. His wives and concubines are strangled in his presence and as he sits by, awaiting interment.

If social conventions can so distort the recognition of paternity, of birth, and of death, it is not surprising that the same distortion applies to the period of puberty. About puberty it is possible to center a number of cultural ideas: attitudes of fear and dread towards menstruation, education either social or individual, practices for the attainment of beauty and charm, magical preparation for life, or mere acceptance into the tribal life. Some societies stress one at the expense of all the others; some stress none. In general, it may be said that when the social emphasis lies upon the fact of menstruation itself rather than upon such derivative points as the girl's entry into tribal society or her marriage, the correspondence between first menses and ceremonial observance is closest. But although the observance of the girl's first menstruation was the principal tribal event among many California Indians, even here we find tribes, like the Luiseno, where the event had become socialized to such an extent that a whole group of girls were treated at once; only one of these was at the actual physiological period.

Whenever the emphasis shifts from menstruation to the more general point of maturity, correspondence between ceremonies and puberty becomes less or may vanish altogether. Among the Dobuans where the sex life of girls begins long before puberty, there is no initiation into tribal life and there is no cultural fear of menstruation. Among these people adolescence goes unremarked.

Among the peoples who do recognize puberty there is great diversity of emphases. Northern California tribal attitudes stressed particularly the danger which the girl could do to the community. Her glance could dry up a spring or banish the deer. But among the Yuki in North Central California, the whole focus of the ritual was to influence the food supply of the people for good. The word for adolescence contains an element meaning *to lie*. The quieter the girl lay, the better would the sun be pleased and the more plentiful would be the crops. The girl herself was important because of her potency for either good or evil. The society gathers up all its resources for its own sake rather than to tide a weak new member over a crisis.

In strong contrast to this formalization is a type also found in California but especially pronounced among the Thomp-

refreshments. The paternal aunt pours oil over the girl's head and again recites an incantation. The canoes then return to the girl's house where she is decked in strings of dogs' teeth and shell money. Her hair is dyed red; her cheeks are painted. Heavy earrings distend her ears. About her waist are fastened two heavy aprons of shell money. All her slender charm is blotted out as she is made into a peg upon which to hang property. The other girls are clothed in a part of this same finery, and they board a large canoe and solemnly parade through the village. A few days later canoes laden with oil and pigs and sago are rowed proudly through the village to the bridegroom's family. The procession passes an island where the skeletons of all the fish the girl has eaten during her confinement are thrown away with an invocation.

The ceremonies (many details of which I have omitted) are at an end. Her relations to her fellows are unchanged. The tasks prescribed for her — bringing wood and water, a little fishing, a little beadwork, lending an occasional hand with the sago making—these are unchanged also.

But the girl has made one discovery: namely, that a woman menstruates every month and that she must exercise the most unfailing vigilance in concealing her condition at such times.

For through the great antagonism and lack of confidence between the sexes in Manus, coupled with shame and extreme prudery in regard to all the natural functions of the body, women conceal from men the truth about menstruation. Everyone knows of first menstruation—it is heralded through the village—but no man knows, nor will believe if told by an outsider, that a girl menstruates between puberty and marriage. The menstruation of married women is attributed by men to intercourse; conception is the result of the combination of menstrual blood and semen. This conspiracy of silence is only half-conscious. Unmarried girls presume that married men know the truth; married women are not very clear about the limits of their secret, but simply jealously guard all knowledge of menstruation and birth from all males, including their husbands.

The little girl who is the center of all this ceremonial is shy and solemn and behaves very much as she does when she has her ears pierced, that is, with an air of self-importance tempered by embarrassment. Older girls when questioned about their puberty ceremonials invariably stress two points: how many of their friends came to sleep with them every night and how much property was given away at the final feast.

So here we have elaborate puberty ceremonial involving taboo, confinement, magical incantations, ceremonial washing and anointing with oil, offerings and invocations to the family dead. Immense amounts of property are displayed and exchanged. The ceremony for one engaged adolescent girl may occupy the entire community for weeks. This is equally true of the big economic ceremonies surrounding betrothal, marriage, or birth. It is upon these ceremonious financial exchanges that the attention of actors and spectators is focussed.

But with all this stress and fuss and institutionalization of adolescence, it is of very little psychological importance to the girl herself. She does nothing to prepare herself for life; she is confronted with no dangers. She cannot seize this moment to realize her dreams of personal beauty. She is a pawn in an elaborate social scheme and is as much and as little interested as any pawn ever is. The real moments of crises and strain in her life are quite different. If she was engaged as a very small child, she is already set apart from her freer age mates and as she grows older sees one after another join her state. The growing up of the girls is marked by less and less fellowship between them. They have no happy secrets to share with one another. They

are marrying boys they have never seen, whose very names they are not allowed to utter. The Manus language has no word for love, no word for affection or caress. The slightest bit of sex life outside legal marriage, except a little kin-determined joking, is punished by the spirits. The few young people who do become involved in a hasty, unromantic sex experiment, are reviled by their elders, shunned by their companions. Moonlight falls whitely on the village but there is no sound of singing on the water; the daughters of the house are safely within doors.

The adolescent years, sometimes the early years of womanhood, sometimes all the years of childhood, are spoiled by the omnipresent demands of society upon the engaged girl, demands enforced by that subtlest instrument of torture, shame. Whatever age the veil descends upon her is the beginning of psychological maturity which will not leave her until as the mother of children, the manager of financial transactions in the community, she becomes a person of importance and resumes her childhood freedom. Her married life is one of prudish respectability, and often outspoken hostility toward her husband.

It is noteworthy that the strain in a Manus girl's life is distributed with so little reference to puberty—and this in a society which gives puberty such thoroughgoing cultural recognition. The whole weighty ritual slips over the girl's head and leaves her far less moved than she is by the first occasion when she must go shrouded about the village where formerly she has run free as a boy. Nor is the period of adolescence that of greatest rebellion in Manus. This comes rather in the early years of marriage, especially when there have been no children or the children have all died.

So it is possible to leave puberty unstressed or to stress it; nor is the deciding factor whether or not the adolescent years will be the storm center in the girl's life. The pattern of social institutions alone is not sufficient to produce or eradicate conflict; it is rather in the far less tangible balancing of cultural forces that the seeds of conflict lie. In Samoa there is no conflict, because the adolescent girl is faced by neither revelation, restriction, nor choice, and because the society expects her to grow up slowly and quietly like a well-behaved flower. In Manus the insistence upon the shamefulness of sex, the repression of all freedom of action that the taboos of betrothal may be observed, the low standard of relations between the sexes, all serve to produce conflict irrespective of the period of adolescence or its elaborate ceremonial.

We have kept a large enough amount of Victorian prudery so that menstruation seems salacious to men and shameful to girls. We still have many girls who do not know of menstruation until they attain puberty. Our attitude remains such that we could not seize upon first menstruation and institutionalize it even if we wished to do so. The physical facts have been relegated to the backstairs, and our girls are taught the need for lying and circumlocution to account for their backaches and headaches and refusals to play tennis. Menstruation among ourselves is a problem of hygiene, not a focus for social ceremonial. Yet we confront the adolescent girl with a state of mind which demands a far more complex response from her than is demanded by a ritual of sitting still and scratching her head with a scratching stick and observing similar taboos. The California Indians, the Thompson River Indians, the Gilbert Islanders, prescribed a ritual, a series of definite, easily comprehended acts, often exacting, often boring, but not baffling.

We prescribe no ritual; the girl continues on a round of school or work, but she is constantly confronted by a mysterious apprehensiveness in her parents and guardians. Her society—if it be a self-conscious one—has all the tensity of

a roomful of people who expect the latest arrival to throw a bomb. This is our puberty ceremonial, uninstitutionalized in its broader aspects, gaining some explicitness in girls' clubwork, social secretaries, personnel workers, etc. Such an attitude begets its own offspring—self-conscious nervous unrest in the adolescent.

Yet Samoa and Dobu both suggest that adolescence is not necessarily a period of stress and strain, that these familiar and unlovely symptoms flow from cultural anxieties. But our present attitude consists not so much in examining the cultural set which produces these conditions as in regarding the result of these conditions as inevitable and rooted in human nature.

A consideration of primitive society will also throw some light upon the degree to which culture may schematize the conflicts which face adolescents.

Despite wide cultural and individual variations, the development of heterosexual interest and activity at puberty does serve to distinguish this period from the periods preceding it and from maturity, in which in most societies heterosexual patterns of behavior have been established.

The growing individual is presented with at least one new problem to solve. This is undoubtedly less of a problem if she has, like the Dobuan or Trobriand girl, engaged in sex play during childhood; it is less of a problem if she has learned something of the mechanism of her own body from manipulation and also has pretty full data about the activities of her elders as in Samoa. It is even less of a problem for the country girl than for the city girl in our own culture: the country girl can hardly escape a minimum of physiological knowledge which a city girl often lacks. But all these different educational factors simply vary the intensity with which the girl confronts the need for heterosexual adjustment. Culture can artificially distort the age at which these problems must be met, but there will still be a period at which adjustment must be made which seems to fall in the years following physical puberty in both primitive and modern societies. Students who draw freely on primitive material are likely to assert either that primitive society seizes this period as the most impressionable in a girl's life or that it constructs a gracious *rite de passage* to tide her over a period pregnant with difficulty.

Yet primitive material does not support either point of view. At whatever point the society decides to stress a particular adjustment, it will be at this point that adjustment becomes acute to the individual. This is true within the limits indicated above, even of sex. It is preeminently true of adjustment to cultural values less directly oriented to physiology. The period at which religious problems become acute to the individual is the period which social usage declares suitable. Among the Winnebago Indians young children are sent out into the wilderness to fast and see visions. In societies like that of some of the Plains Indians, where all men are expected to see visions, religious experience becomes a far more pressing matter than among the California Indians where such experience is reserved for those who wish to become shamans. In Manus the only people who are expected to have any direct contact with the spiritual world are women who have lost male children. Only the mature woman with a dead child, who has paid an older medium to train her and still finds herself unable to understand the talk of the spirits, is faced by a definitely spiritual problem. The society can define the age and range and sex to which religious experience is presented as a problem to be solved.

Even more subject to cultural definition is the question of the assumption of social responsibility. The Cheyenne treated a tiny bird caught by a child

hunter as seriously as the buffalo shot by a grown man. Very young boys were permitted to join war parties and were tenderly guarded by the older men lest thoughtless youth should ridicule their presence. Here social participation was made so gradual and gentle a business that the irksomeness of a sudden accession of responsibilities was lacking. In contrast to this is the Manus system by which young boys are free as birds, owing no obligations to their elders until marriage, which reduces them to an ignominious position of acute economic dependence and which makes large demands on their time and energy. Samoa follows a third system in pushing the period when real responsibility is assumed up into the thirties: until that time a man and woman, although married, are insignificant members of a larger household directed by someone else. Perhaps the most drastic deferring of responsibility yet reported is found in the island of Mentawie where some men do not publicly acknowledge their wives nor assume the responsibilities of the head of a household until their own children are half grown men and old enough to work for them.

As it is possible to find societies which can assign the solution of these problems to different ages or omit their solution entirely, it is not reasonable to regard them as inherently part of the adolescent period of development. If we are faced with adolescents trying to solve all these difficulties at once, this is an aspect of American civilization, not of human adolescence.

The American girl does not grow up in a coherent society as does the Manus girl and the Samoan girl. Instead she must enter a world filled with conflicting standards, contrasting philosophies, angry propaganda. Choices—of religion or doubt, of kind of work, of type of love—face the girl from the moment she reaches a thinking age. She can choose not only whom she will love, but whether she will love in or out of wedlock, one or many. She can choose love without marriage, marriage without children; she may be tempted occasionally to choose children without marriage. And every girl who consciously makes one of these choices sets small patterns for scores of weaker, less articulate comrades.

The average American girl is asked to leave school, become a wage earner, meet the new demands of living, economically independent but socially dependent in the home where she was hitherto entirely dependent, and to subject her home and its religious and ethical standards to the ordeal of contrast with other standards. All of this is thrust upon her suddenly, in addition to the problem of sex adjustment. Thus a number of relatively unrelated forces have combined to make the adolescent in America stand at the point of highest pressure and difficulty, just as another set of forces place her at the lowest point of pressure in Samoa.

Most of the factors which complicate the lives of the adolescent: changing sex mores, the present economic system, the heterogeneity of American society, are hardly subject to manipulation by the most earnest social legislator or purveyor of panaceas. We cannot make the choices of our adolescents easy, nor can we postpone them. Probably the most we can do is to devise a new ritual of expectation.

The attitudes of the adult world are by and large the more malleable material for manipulation. The Gilbert Islander kindles a fire on his son's shaven head and expects the boy to bear it without flinching. If he denied the presence of the fire on the one hand and with the other nervously grasped a pail of water to quench the flames if they spread too far, the ordeal would be far harder for the boy.

In comparing primitive and modern societies, one other marked contrast between their adolescents is most notable. If we lay aside the purely physical defi-

nition of maturity and consider adolescence as the period following childhood during which the individual becomes placed in his society, we are struck at once by the enormous difference in range. Our material on individual adjustments in primitive society is slight, but such as it is it suggests that the unplaced person who has as yet come to no terms with his society is comparatively rare. Even marked potentialities for maladjustment, such as definite inversion, are very frequently fitted into a social pattern.

Any complex modern society presents a contrast to this. Although a civilization like America may set a definite premium upon a career which deals with things, either as an engineer or a financier, there are groups which regard the career of the artist, the writer, the evangelist as of far higher value. Whether or not any one girl can actually make her own the one of these many choices which is most congenial to her, does not change the effect upon youth's adjustment. With a range of possibilities equal to the range of temperaments, or at least fitted to many temperaments, though most unequally possible of achievement, adolescence as a period of adjustment is inevitably prolonged.

This aspect of complex societies has affected men for generations. It is just beginning to affect women in our society. To her the choice of a sex pattern is more pressing than to her brother; she has now also the possibilities of choice among careers, among ways of life which answer needs not met by any pattern of personal relations or physiological function. Because sex complicates a woman's life more conspicuously than a man's, the adolescent unplaced woman is perhaps an even more frequent phenomenon in urban life than is the unplaced man.

The contrast between primitive and modern society is increased when we consider adolescence as the growth period of personality, as a function of the complexity of society, not merely of the human life cycle. It is conceivable that in societies more complex than ours this type of adolescence will encroach even more on the years of maturity and that, while the primitive boy or girl is ready to assume the burden of his or her tradition at twenty and carry it unquestioningly to the grave, many of our most potentially gifted individuals will die adolescent, unplaced, and without realizing any of the promise of their genius. Among the Thompson Indians the gifted and the ungifted pass through a definite ritual to take their ordained places in their society. But for the adolescence of the spirit there is no puberty ceremonial.

3.

PSYCHOLOGICAL TYPES IN THE CULTURES OF THE SOUTHWEST

By Ruth Benedict

The culture of the Pueblo Indians is strongly differentiated from that of surrounding peoples. Most obviously, all aspects of their life are highly ritualized, highly formalized. No one has lived among them who has not been struck by the importance of the formal detail in rite and dance, the intricate interrelations of the ceremonial organization, the lack of concern with personal religious

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experience or with personal prestige or exploit. The emphasis in their all-absorbing ceremonial routine is placed where it was in the medieval Roman church of certain periods, on the formal observance, the ritualistic detail for its own sake.

This is so conspicuously true for the Southwest peoples that in descriptions of their culture we have been content to let the matter rest with this characterization. Yet in a civilization such as that of the North American Indians high ritualistic development sets no group off in any definitive fashion from the vast majority of peoples. The ritual of the sun dance, the peace pipe ceremonies, the cult groups, and age-societies of the Plains, or the winter ceremonial of the Northwest Coast bulk perhaps slightly less prominently in the total life of these people than the calendric dances and retreats of the Southwest, but it is not by any such matter of gradation that the Southwest is set off from other American Indian cultures. There is in their cultural attitudes and choices a difference in psychological type fundamentally to be distinguished from that of surrounding regions. It goes deeper than the presence or the absence of ritualism; ritualism itself is of a fundamentally different character within this area, and without the understanding of this fundamental psychological set among the Pueblo peoples we must be baffled in our attempts to understand the cultural history of this region.[1]

It is Nietzsche who has named and described, in the course of his studies in Greek tragedy, the two psychological types which have established themselves in the region of the Southwest in the cultures of the Pueblo. He has called them the Dionysian and the Apollonian. He means by his classification essentially confidence in two diametrically different ways of arriving at the values of existence.[2] The Dionysian pursues them through "the annihilation of the ordinary bounds and limits of existence"; he seeks to attain in his most valued moments escape from the boundaries imposed upon him by his five senses, to break through into another order of experience. The desire of the Dionysian, in personal experience or in ritual, is to press beyond, to reach a certain psychological state, to achieve excess. The closest analogy to the emotions he seeks is drunkenness, and he values the illuminations of frenzy. With Blake, he believes "the path of excess leads to the palace of wisdom." The Apollonian distrusts all this, if by chance he has any inkling of the occurrence of such experiences; he finds means to outlaw them from his conscious life. He "knows but one law, measure in the Hellenic sense." He keeps the middle of the road, stays within the known map, maintains his control over all disruptive psychological states. In Nietzsche's fine phrase, even in the exaltation of the dance, "he remains what he is, and retains his civic name."[3]

The Southwest Pueblos are, of course, Apollonian, and in the consistency with which they pursue the proper valuations of the Apollonian they contrast with very nearly the whole of aboriginal America. They possess in a small area, islanded in the midst of predominantly Dionysian cultures, an *ethos* distinguished by sobriety, by its distrust of excess, that minimizes to the last possible vanishing point any challenging or dangerous experiences. They have a religion of fertility without orgy, and absorption in the dance without using it to arrive at ecstasy. They have abjured torture.

[1] For the theoretical justification of this position in the study of cultures, see Ruth Benedict, "Configurations of Culture in North America," *Am. Anthropol.*, N. S., 1932, XXXIV, 1–27.

[2] I have not followed Nietzsche's definitions in their entirety; I have used that aspect which is pertinent to the problems of the Southwest.

[3] *Birth of Tragedy*, p. 68.

They indulge in no wholesale destruction of property at death. They have never made or bought intoxicating liquors in the fashion of other tribes about them, and they have never given themselves up to the use of drugs. They have even stripped sex of its mystic danger. They allow to the individual no disruptive role in their social order. Certainly in all of these traits they stand so strikingly over against their neighbors that it is necessary to seek some explanation for the cultural resistances of the Pueblos.

The most conspicuous contrast, in the Pueblos, is their outlawry of the divine frenzy and the vision. Now in North America at large the value of ecstatic experience in religion is a cornerstone of the whole religious structure. It may be induced by intoxicants and drugs; it may be self-induced—which may include such means as fasting and torture—or it may be achieved in the dance.

We may consider first the ecstasy induced by intoxicants and drugs. For the neighboring Pima, who share the culture of the primitive tribes of northern Mexico, intoxication is the visible mirroring of religion, it is the symbol of its exaltation, the pattern of its mingling of clouded vision and of insight. Theory and practice are explicitly Dionysian.

"And I was made drunk and given the sacred songs";
"He breathed the red liquor into me,"

are in their songs common forms of reference to the shamanistic experience. Their great ceremony is the drinking of the "tizwin," the fermented juice of the fruit of the giant cactus. The ceremony begins with all religious formality and the recitation of ritual, but its virtue lies in the intoxication itself; the desired state is that of roused excitement, and they accept even extreme violence more readily than a state of lethargy. Their ideal is to stave off the final insensibility indefinitely while achieving the full excitation of the intoxicant. This is of course a form of fertility and health magic and is in complete accord with the Dionysian slant of their culture.

It is much commoner, north of Mexico, to use drugs rather than intoxicants for religious ends. The peyote or mescal bean of northern Mexico has been traded up the Mississippi Valley as far as the Canadian border, and has been the occasion of serious religious movements among many tribes. It gives supernormal experiences with particularly strong affect, no erotic excitation, very often brilliant color images. The cult is best described for the Winnebago[4] where the peyote is identified with the supernatural. "It is the only holy thing I have been aware of in all my life"; "this medicine alone is holy and has rid me of all evil."[5] It was eaten everywhere with the object of attaining the trance or supernormal sensations which the drug can give. The Arapaho ate it in an all-night ceremony after which the effects of the drug prolonged themselves throughout the following day.[6] The Winnebago speak of eating it for four days and nights without sleep.

The *datura* is a more drastic poison. I have been told by the Serrano and Cahuilla of boys who have died as a result of the drink, and the Luiseño tell also the same story.[7] It was used by the tribes of Southern California, and north including the Yokuts, for the initiation of boys at puberty. Among the Serrano

[4] Paul Radin, "The Winnebago Tribe," *Thirty-seventh Annual Report, Bureau of American Ethnology* (Washington, 1923), pp. 388–426.

[5] *Ibid.*, pp. 408; 392.

[6] A. L. Kroeber, "The Arapaho," *Bulletin, American Museum of Natural History* (New York, 1907), XVIII, p. 398.

[7] A. L. Kroeber, "Handbook of the Indians of California," *Bulletin 78, Bureau of American Ethnology* (Washington 1925), p. 669

the boys were overcome by the drug during the night and lay in a comatose condition through the next day and night, during which time they were granted visions. On the following day they ran a race.[8] Among the Luiseño it seems to have been the same, four nights of trance being spoken of as excessive.[9] The Diegueño reckon only one night of complete stupefaction.[10] The Mohave drank *datura* in order to gain luck in gambling; they were said to be unconscious for four days,[11] during which time they received their power in a dream.

None of these alcohol and drug-induced excitations have gained currency among the Pueblos. The Pima are the nearest settled neighbors of the Zuñi to the southwest and easily accessible; tribes of the Plains with which the eastern Pueblos came in contact are the very ones in which peyote practices are important; and to the west the tribes of Southern California share certain characteristic traits of this very Pueblo culture. The absence of these traits in the Pueblos is therefore not due to the cultural isolation of impassable barriers. We know too that the period of time during which the Pueblos and their neighbors have been settled relatively near to one another is of considerable antiquity. But the Pueblos have defended themselves against the use of drugs and intoxicants to produce trance or excitement even in cases where the drugs themselves are known among them. Any Dionysian effect from them is, we may infer, repulsive to the Pueblos, and if they receive cultural recognition at all it is in a guise suited to Apollonian sobriety. They did not themselves brew any native intoxicant in the old days, nor do they now. Alone among the Indian reservations, the whiskey of the whites has never been a problem in the Southwest. When, in 1912, drinking seemed to be making some headway among the younger generation in Zuñi, it was the Pueblo elders themselves who took the matter in hand. It is not that it is a religious taboo; it is deeper than that, it is uncongenial. The peyote has been introduced only in Taos, which is in many ways marginal to Pueblo culture.

Datura is used in Zuñi as it was in ancient Mexico[12] in order to discover a thief, and Mrs. Stevenson gives an account of the manner of its use.[13] Read in connection with her quotations on *datura* poisoning and the two to four day trances of the Mohave and Mission Indians, it is a classic example of the Apollonian recasting of a Dionysian technique. In Zuñi the man who is to take the drug has a small quantity put in his mouth by the officiating priest, who then retires to the next room and listens for the incriminating name from the lips of the man who has taken the *datura*. He is not supposed to be comatose at any time; he alternately sleeps and walks about the room. In the morning he is said to have no memory of the insight he has received. The chief care is to remove every trace of the drug and two common desacratizing techniques are employed: first, he is given an emetic, four times, till every vestige of the drug is supposed to be ejected; then his hair is washed in yucca suds. The other Zuñi use of *datura* is even further from any connection with

[8] Ruth Benedict, "A Brief Sketch of Serrano Culture," *Am. Anthropol.*, N. S., 1924, XXVI, p. 383.

[9] A. L. Kroeber, "Handbook," *op. cit.*, p. 669.

[10] *Ibid.*

[11] *Ibid.*, p. 779.

[12] William E. Safford, "Narcotic Daturas of the Old and New World; an Account of Their Remarkable Properties and Their Uses as Intoxicants and in Divination," *Annual Report, Smithsonian Institution for 1920* (Washington, 1922), p. 551.

[13] Matilda C. Stevenson, "The Zuñi Indians, Their Mythology, Esoteric Fraternities and Ceremonies," *Twenty-third Annual Report, Bureau of American Ethnology* (Washington, 1904), p. 89.

a Dionysian technique; members of the priestly orders go out at night to plant prayer sticks on certain occasions "to ask the birds to sing for rain," and at such times a minute quantity of the powdered root is put into the eyes, ears and mouth of each priest. Here any connections with the physical properties of the drug are lost sight of.

Much more fundamental in North America than any use of drugs or alcohol to induce ecstasy was the cult of the self-induced vision. This was a near-universality from ocean to ocean, and everywhere it was regarded as the source of religious power. The Southwest is by no means beyond the southern limits of its distribution, but it is the one outstanding area of North America where the characteristic development of the vision is not found. This experience has several quite definite characteristics for North America: it is achieved characteristically in isolation, and it gives to the successful individual a personal manitou or guardian spirit who stands to him in a definite life-long relationship. Though west of the Rockies it is often regarded as an involuntary blessing available only for those of a particular psychological make-up, throughout the great extent of the continent it is sought by isolation and fasting, and in the central part of the continent often by self-torture. This "vision," from which supernatural power was supposed to flow, did not by any means signify only supernormal or Dionysian experiences, but it provided always a pattern within which such an experience had peculiar and institutionalized value; and in the great majority of cases it was these more extreme experiences that were believed to give the greater blessing.

The absence of this vision complex in the Southwest is one of the most striking cases of cultural resistance or of cultural reinterpretation that we know in North America. The formal elements are found there: the seeking of dangerous places, the friendship with a bird or animal, fasting, the belief in special blessings from supernatural encounters. But they are no longer instinct with the will to achieve ecstasy. There is complete reinterpretation. In the pueblos they go out at night to feared or sacred places and listen for a voice, not that they may break through to communication with the supernatural, but that they may take the omens of good luck and bad. It is regarded as a minor ordeal during which you are badly frightened, and the great taboo connected with it is that you must not look behind you on the way home no matter what seems to be following you. The objective performance is much the same as in the vision quest; in each case, they go out during the preparation for a difficult undertaking—in the Southwest often a race—and make capital of the darkness, the solitariness, the appearance of animals. But the significance is utterly different.

Fasting, the technique most often used in connection with the self-induced vision, has received the same sort of reinterpretation in the Southwest. It is no longer utilized to dredge up experiences that normally lie below the level of consciousness; it is here a requirement for ceremonial cleanness. Nothing could be more unexpected to a Pueblo Indian than any theory of a connection between fasting and any sort of exaltation. Fasting is required during all retreats, before participation in a dance, in a race, etc., etc., but it is never followed by power-giving experience; it is never Dionysian. Fasting, also, like drugs and visions, has been revamped to the requirements of the Apollonian.

Torture, on the contrary, has been much more nearly excluded. It is important only in the initiations and dances of certain curing societies[14] and in these

[14] F. Cushing, "My Experience in Zuñi," *Century Magazine*, 1883, IV, p. 31; M. C. Stevenson, *op cit.*, p. 503. "All are filled with the spirit of good nature."

cases there is no suggestion of any states of self-oblivion. It is interesting that the Pueblos have been exposed to self-torture practices, both in the aboriginal culture of the Plains, and in European-derived practices of the Mexican Penitentes. The eastern Pueblos are in the very heart of the Santa Fé Penitentes country and these Mexicans attend their dances and ceremonies regularly and without hindrance. Much in their practice they have in common with the Indians: the retreats in the ceremonial house, the organization of the brotherhood (priesthoods, for the Indian), the planting of crosses. But the self-lashing with cactus whips, the crucifixion on Good Friday, are alien; torture has not penetrated Pueblo life either from these practices or from those of the Plains or of California. Among the Pueblos, every man's hand has its five fingers, and unless he has been tortured as a witch, he is unscarred.

No more than the Pueblos have allowed ecstasy as induced by alcohol or drugs, or under the guise of the vision, have they admitted it as induced by the dance. Perhaps no people in North America spend more time in dance than the Southwest Pueblos. But its use as the most direct technique at our command for the inducement of supernormal experience is alien to them. With the frenzy of a Nootka bear dance, of a Kwakiutl cannibal dance, of a ghost dance, of a Mexican whirling dance, their dancing has nothing in common. It is rather a technique of monotonous appeal, of unvarying statement; always, in the phrase of Nietzsche's I used before, "they remain as they are and retain their civic names." Their theory seems to be that by the reiteration of the dance they can exercise compulsion upon the forces they wish to influence.

There are several striking instances of the loss, for the Pueblos, of the Dionysian significance of specific dance behavior, the objective aspects of which they still share with their neighbors. The best is probably the dance upon the altar. For the Cora of northern Mexico the climax of the whirling dance is reached in the dancer's ecstatic, and otherwise sacrilegious, dancing upon the ground altar itself. In his madness it is destroyed, trampled into the sand again.[15] But this is also a Pueblo pattern. Especially the Hopi at the climax of their dances in the kivas dance upon the altar destroying the ground painting. Here there is no ecstasy; it is raw material used to build up one of the common Pueblo dance patterns where two "sides" which have previously come out alternately from opposite sides, now come out together for the dance climax. In the snake dance, for instance,[16] in the first set Antelope (dancer of Antelope society) dances, squatting, the circuit of the altar, retires; Snake (dancer of Snake society) repeats. In the second set Antelope receives a vine in his mouth and dances before the initiates trailing it over their knees; retires; Snake repeats with a live rattlesnake held in the same fashion. In the final set Antelope and Snake come out together, dancing together upon the altar, still in the squatting position, and destroy the ground painting. It is a formal sequence, like a Morris dance.

It is evident that ecstatic experience is not recognized in the Southwest and that the techniques associated with it in other areas are reinterpreted or refused admittance. The consequence of this is enormous: it rules out shamanism. For the shaman, the religious practitioner whose power comes from experiences of this type, is everywhere else in North America of first rate importance. Wherever the authority of religion is derived from his solitary mental aberrations and stress experiences and his instructions

[15] K. T. Preuss, *Die Nayarit-Expedition* (Leipzig, 1912), p. 55.

[16] H. R. Voth, "Oraibi Summer Snake Ceremony," *Field Columbian Museum, Publication 83.* (Chicago, 1903), p. 299.

derived therefrom are put into practice by the tribe as a sacred privilege, that people is provided with a technique of cultural change which is limited only by the unimaginativeness of the human mind. This is a sufficient limitation; so much so, that it has never been shown that cultures which operate on this basic theory are more given to innovation than those which disallow such disruptive influences. This should not blind us to the fact, however, that the setting in these two cultures for the exercise of individuality is quite different; individual initiative which would be fully allowed in the one case [17] would in the other be suspect, and these consequences are fully carried out in the Southwest. They have hardly left space for an impromptu individual act in their closely knit religious program; if they come across such an act they label the perpetrator a witch. One of the Zuñi tales I have recorded tells of the chief priest of Zuñi who made prayer sticks and went out to deposit them. It was not the time of the moon when prayer sticks must be planted by members of the curing societies, and the people said, "Why does the chief priest plant prayer sticks? He must be conjuring." As a matter of fact he was calling an earthquake for a private revenge. If this is so in the most personal of Zuñi religious acts, that of planting prayer sticks, it is doubly so of more formal activities like retreats, dances, etc. Even individual prayers of the most personal sort—those where cornmeal is scattered—must be said at sunrise, or over a dead animal, or at a particular point in a program, etc.; the times and seasons are always stipulated. No one must ever wonder why an individual was moved to pray.

Instead therefore of shamans with their disruptive influence upon communal practices and settled traditions, the Southwest has religious practitioners who become priests by rote memorizing and by membership in societies and cult groups. This membership is determined by heredity and by payment [18] for though in their own theory serious illness or an accident like snake bite or being struck by lightning are the accepted reasons for membership in certain societies, there are always alternative ways of joining even the curing societies so that no man with interest and sufficient means remains outside. In Zuñi heredity is the chief factor in membership in the priestly groups, payment in the curing societies; in neither is individual supernatural power ever claimed by any member as a result of personal illumination. Those who practice curing in Zuñi are merely those who by payment and by knowledge of ritual have reached the highest orders of the curing societies and received the personal corn fetish, the *mili*.

If the ecstasy of the Dionysian has been rejected in the Southwest with all its implications, so too has the orgy. There is no doubt that the idea of fertility bulks large in the religious practices of the Southwest,[19] and with fertility rites we almost automatically couple orgy, so universally have they been associated in the world. But the Southwest has a religion of fertility founded on other associations. Haeberlin's study gives a useful summary of the type of ritual that is here considered to have this efficacy.[20] The cylinders the men carry and the annulets carried by the women in ceremonies are sex symbols and are thrown by them into springs or onto

[17] See Paul Radin, *Primitive Man as Philosopher* (New York: Appleton, 1927), pp. 257–275, for discussion of the wide limits of individualism among the Winnebago.

[18] Except for the war chiefs' societies where it was necessary to have taken a scalp.

[19] H. K. Haeberlin, "The Idea of Fertilization in the Culture of the Pueblo Indians," *Memoirs, American Anthropological Association*, 1916, III, No. 1.

[20] *Ibid.*, especially p. 39 ff.

ground paintings: or in the women's dance two are dressed as male dancers and shoot arrows into a bundle of cornhusks; or a line of women with yucca rings run in competition with a line of men with kicking sticks. In Peru in a race of exactly similar import, men racing women, the men ran naked and violated every woman they overtook.[21] The pattern is self-evident and common throughout the world, but not in the Southwest. In Zuñi there are three occasions on which laxness is countenanced. One of these is in the retreat of the Tlewekwe society, which has power over cold weather. The priestesses of the medicine bundle of this society (*te etone*) and the associated bundle (*mu etone*) during one night receive lovers, and they collect a thumb's length of turquoise from their partners to add to the decorations of their bundles. It is an isolated case in Zuñi and the society can no longer be very satisfactorily studied. The other two cases are rather a relaxation of the customary strict chaperonage of the young people, and occur at the ceremonial rabbit hunt[22] and on the nights of the scalp dance; children conceived on these nights are said to be exceptionally vigorous. Doctor Bunzel writes, "These occasions on which boys and girls dance together or are out together at night provide an opportunity for sweethearts. There is no promiscuity, and they are never, never orgiastic in character. There is amiable tolerance of sexual laxity; a 'boys will be boys' attitude." It is all very far indeed from the common Dionysian sex practices for the sake of fertility.

It is not only in connection with fertility and sex that orgy is common among the peoples of America. In the region immediately surrounding the Southwest, there is on the one hand the orgy of sun dance torturing to the east and the orgy of wholesale destruction in the mourning ceremonies to the west. As I have said, torture plays a very slight role in the Southwest, orgiastic or otherwise. Mourning is made oppressive by fear of the dead, but there is no trace of abandon. Mourning here is made into the semblance of an anxiety complex; it is a completely different thing from the wild scenes of burning the dead in a bonfire of offered property and of clothes stripped from the mourners' backs that the Mohave practice[23] and that is found in such Dionysian fullness commonly in California,—where among the Maidu mourners have to be forcibly restrained from throwing themselves into the flames,[24] and among the Pomo they snatch pieces of the corpse and devour them.[25]

One Dionysian ceremony of wide American distribution has established itself in the Southwest—the scalp dance. This is the victory dance of the Plains, or the women's dance, and the position of honor given to women in it, the four-circle coil danced around the encampment, the close-fitting war-bonnet, certain treatments of the scalp, are the same in the Southwest as on the Plains. The wilder abandons of the Plains dance are, as we should expect, omitted but there occurs in this dance, at least in Zuñi, one of the few ritual Dionysian acts of the Southwest—the washing and biting of the scalp. For the repulsion against contact with bones or a corpse is intense among these people, so that it makes an occasion for horror out of placing a scalp between the teeth, whereas placing a snake between the teeth in the snake dance is no such matter. The woman who carries the scalp in the dance—the position of honor—must rise to this pitch

[21] P. J. Arriaga, *Extirpación de la Idolatria del Peru* (Lima, 1621), p. 36 ff.
[22] Information from Doctor Bunzel.
[23] Kroeber, "Handbook," *op. cit.*, p. 750.
[24] *Ibid.*, p. 431.
[25] *Ibid.*, p. 253.

and every girl is said to dread being called out for the role.

Ecstasy and orgy, therefore, which are characteristic of America at large are alien in the Southwest. Let me illustrate this fundamental Apollonian bent in the Southwest by certain specific examples of the way in which it has worked itself out in their culture.

There is considerable emphasis in North America upon the ritualistic eating of filth and it is in this category that the very slightly developed cannibalistic behavior of the Northwest Coast belongs. That is, the emphasis there is never, as so often in cannibalism, upon the feast, nor on doing honor to or reviling the dead. The cannibal dance of the Kwakiutl is a typically Dionysian ritual.[26] It is not only that it is conceived as a dramatization of a condition of ecstasy which the main participant must dance to its climax before he can be restored to normal life; every ritualistic arrangement is designed—I do not mean consciously—to heighten the sense of the anti-natural act. A long period of fasting and isolation precedes the rite, the dance itself is a crouching, ecstatic pursuit of the prepared body held outstretched toward him by a woman attendant. With the required ritualistic bites the anti-natural climax is conceived to be attained, and prolonged vomiting and fasting and isolation follows.

In the filth eating of the Southwest, which is the psychological equivalent to this initiation of the Kwakiutl cannibal, the picture is entirely different. The rite is not used to attain horror, nor to dramatize a psychological climax of tension and release. Captain Bourke has recorded the Newekwe feast he attended with Cushing, at which gallon jars of urine were consumed by the members of the society. The picture is as far from that of the Kwakiutl rite as any buffoonery of our circus clowns. The atmosphere was one of coarse joviality, each man trying to outdo the others. "The dancers swallowed huge decanters, smacked their lips, and amid the roaring merriment of the spectators, remarked that it was very, very good. The clowns were now upon their mettle, each trying to surpass his neighbors in feats of nastiness." [27]

The same comment is true not only of filth eating but of clowning in the Southwest in general. I take it that the true Dionysian use of clowning is as comic relief in sacred ceremonial where the release from tension is as full of meaning as the preceding tension, and serves to accentuate it. This use of clowning seems to have been developed, for instance, in the ancient Aztec rites. Now I have never seen any clowning in the Pueblos that seemed to me remotely even to partake of this character, and I do not know of any description which would indicate its presence. Clowning can be buffoonery with no Dionysian implications, as we know well enough from the examples in our own civilization. It is this same use that is most prominent in the Southwest, but clowning is used there also for social satire, as in the take-offs of agents, churches, Indian representatives, etc., and it is common too as a substitute for the joking-relationship, which is absent here, and its license for very personal public comment.

Another striking example of the Southwest Apollonian bent is their interpretation of witch power. The Southwest has taken the European witch complex with all its broomsticks and witches' animal suits and eyes laid on a shelf, but they have fitted it into their own *Weltan-*

[26] Franz Boas, "The Social Organization and Secret Societies of the Kwakiutl," *Report, United States National Museum for 1895* (Washington, 1897), p. 537 ff.

[27] John G. Bourke, *Compilation of Notes and Memoranda bearing on the Use of Human Ordure and Human Urine in Rites of a Religious or Semi-religious Character among Various Nations* (Washington, 1888), p. 9.

schauung. The most articulate statement that I know of a widespread attitude is still in manuscript in Doctor Parson's monograph on Isleta. The difference, for Isleta, between witch power and good power is simply that good supernatural power is always removed from you as soon as you have put it to the use you intended; witch power is nonremovable, it rides you for life. Their practice perfectly agrees with this; after every sacred investiture every participant in any rite is desacratized, the unwanted mysterious power is laid aside. Nothing could conceptualize more forcibly their discomfort in the face of mystery. Even the best supernatural power is uncanny.

Their lack of comprehension of suicide is, I think, another specific Apollonian trait. The Pima tell many stories of men who have killed themselves for women, and the Plains made suicide a ceremonial pattern; fundamentally their vows to assume the slit sash were suicide pledges in order to raise their rank. But the Pueblos tell the most inept stories[28] which are obvious misunderstandings of the concept. Again and again I have tried to convey the general idea of suicide to different Pueblo Indians, either by story or by exposition. They always miss the point. Yet in their stories they have the equivalent. There are a number of Zuñi stories[29] which tell of a man or woman whose spouse has been unfaithful—or of priests whose people have been unruly; they send messengers, often birds, to the Apache and summon them against their pueblo. When the fourth day has come—nothing ever happens in the Southwest till the fourth day—they wash themselves ceremonially and put on their finest costumes and go out to meet the enemy that they may be the first to be killed. When I have asked them about suicide no one has ever mentioned these stories, though they had perhaps been told that very day, and indeed they do not see them in that light at all. They are ritual revenge and the Dionysian gesture of throwing away one's life is not in question.

The cultural situation in the Southwest is in many ways hard to explain. With no natural barriers to isolate it from surrounding peoples, it presents probably the most abrupt cultural break that we know in America. All our efforts to trace out the influences from other areas are impressive for the fragmentariness of the detail; we find bits of the weft or woof of the culture, we do not find any very significant clues to its pattern. From the point of view of the present paper this clue is to be found in a fundamental psychological set which has undoubtedly been established for centuries in the culture of this region, and which has bent to its own uses any details it imitated from surrounding peoples and has created an intricate cultural pattern to express its own preferences. It is not only that the understanding of this psychological set is necessary for a descriptive statement of this culture; without it the cultural dynamics of this region are unintelligible. For the typical choices of the Apollonian have been creative in the formation of this culture, they have excluded what was displeasing, revamped what they took, and brought into being endless demonstrations of the Apollonian delight in formality, in the intricacies and elaborations of organization.

[28] Elsie Clews Parsons, "A Zuñi Detective," *Man*, XVI, 169.

[29] R. Benedict, Mss.

4.

NEGRO INTELLIGENCE AND URBAN RESIDENCE

By Otto Klineberg

This part of the study attempts to discover whether the admittedly superior northern environment has any effect in raising the intelligence-test scores of southern-born Negro children. The method used was to compare the scores obtained by different groups of New York Negro children, all born in the South, but differing in the number of years which they had lived in New York City. If the environment has an effect, there should be a rise in intelligence at least roughly proportionate to length of residence in New York. If there is no environmental effect, and if the superiority of the New York City Negroes is entirely due to selective migration, length of residence ought to make little or no difference.

Three studies with the National Intelligence Test, Scale A, Form I, were made upon 1,697 twelve-year-old boys and girls in the Harlem schools in 1931 and 1932. In all three studies the subjects at the time of testing had passed their twelfth, and had not yet reached their thirteenth birthdays. The attempt was made in each case to secure every Negro boy or girl within this age range at the various schools at which the studies were made, and it is not likely that many were omitted. The scores were so combined as to make possible a comparison between a northern-born control group and the southern-born children who had been in New York one year, two years, and so on up to eleven years. In every case note was taken of the average school grade of these various groups, so that degree of retardation or acceleration in school might also be used as a rough measure of present intellectual level. As might be expected, the intelligence-test scores and the school grades show a high degree of correspondence.

(1) The first of these studies was made by George Lapidus on 517 twelve-year-old boys between February and May,

TABLE 1

NATIONAL-INTELLIGENCE-TEST SCORE AND LENGTH OF RESIDENCE (LAPIDUS)

Residence years	1 year	2 years	3 years	4 years	5 years	6 years
No. of cases . . .	30	26	14	21	22	19
Average score . . .	64.43	63.96	54.50	75.09	76.72	67.21
Residence years	**7 years**	**8 years**	**9 years**	**10 years**	**11–12 years**	**12 years (northern-born)**
No. of cases . . .	18	15	13	10	21	308
Average score . . .	86.61	79.93	74.00	79.10	93.85	86.93

From Otto Klineberg, *Negro Intelligence and Selective Migration* (New York: Columbia University Press, 1935). Copyright 1935 by Columbia University Press. Reprinted by permission of the author and the publisher.

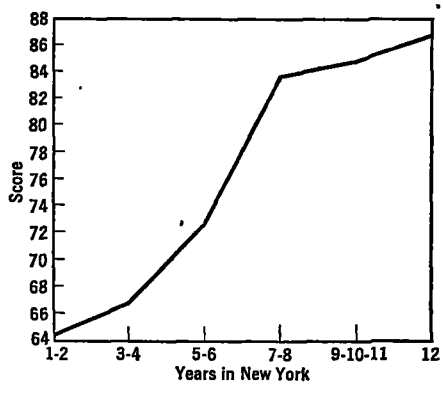
TABLE 2

GRADE RETARDATION (LAPIDUS)

Residence years	1 year	2 years	3 years	4 years	5 years	6 years
No. of cases . . .	30	26	14	21	22	19
Average grade . . .	4B.86	4B.96	4B.69	5A.96	5B.38	5B.00
Retardation yrs. . .	2.07	2.02	2.15	1.52	1.31	1.50
Residence years	**7 years**	**8 years**	**9 years**	**10 years**	**11–12 years**	**12 years (northern-born)**
No. of cases . .	18	15	13	10	21	308
Average grade . . .	5B.84	6A.06	6A.25	6A.89	6A.04	6A.44
Retardation yrs. . .	1.08	0.97	0.88	0.55	0.98	0.78

1931; the subjects were all in attendance at three public schools and one junior high school in Harlem. Table 1 gives the average National Intelligence Test scores for each group.

It may be seen that in spite of minor fluctuations there is a very definite tendency for the scores to improve as length of residence increases. This result appears more clearly when the test scores of the subjects are combined into two-year groupings; the rise is now definite and regular, as shown in Graph 1.



GRAPH 1. National Intelligence Test Scores and Length of Residence, Combined Groups (Lapidus).

Taking the northern-born group as standard, there is a reliable difference in its favor over the one-two-year group and the three-four-year group, the difference divided by the sigma of the difference being equal to 5.33 and 3.83, respectively. The superiority over the five-six-year group is practically reliable (99 chances in 100); over those subjects who have been in New York seven years or more the superiority is small and unreliable.

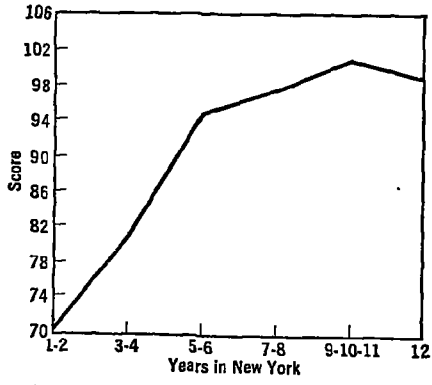
Table 2 gives the average grade for these various groups and also the degree of retardation. It is clear in this case also that length of residence in New York has a very real effect upon scholastic level. Since 7A is the normal grade for twelve-year-old white pupils, it can be seen that the northern-born group is only slightly more than three fourths of a year retarded, and that the retardation is far more marked in the case of the recent arrivals from the South. This finding agrees with the experience of school authorities in the North, who have found it a very difficult problem to assimilate southern Negro children into their classes.

(2) The second study with the National Intelligence Test was made between February and May, 1932, by Charlotte Yates on 619 twelve-year-old girls in the Harlem schools. The scores

TABLE 3

NATIONAL INTELLIGENCE TEST SCORE AND LENGTH OF RESIDENCE (YATES)

Residence years	1 year	2 years	3 years	4 years	5 years	6 years
No. of cases . . .	30	28	31	19	31	26
Average score . . .	63.66	70.43	76.25	88.78	96.58	94.38
Standard deviation .	25.3	34.96	18.78	26.23	24.79	21.24
Reliability of average	4.61	6.60	3.55	6.02	4.40	4.16
Residence years	7 years	8 years	9 years	10 years	11 years	12 years (northern-born)
No. of cases . . .	23	22	14	15	21	359
Average score . . .	96.56	98.09	106.85	94.67	99.23	97.86
Standard deviation .	20.46	25.88	18.10	29.76	27.95	29.7
Reliability of average	4.26	5.51	4.83	7.69	6.1	1.5



GRAPH 2. National Intelligence Test Scores and Length of Residence, Combined Groups (Yates).

were combined in the same way as in the preceding study, and the results are presented in Tables 3–6, and Graphs 2 and 3.

The results are again quite clear and definite (especially in the case of the groups combined in two-year intervals, Graph 2). The difference between the northern-born group and the southern group with one to two years' residence in New York is completely reliable; d/σ_d (that is, the difference divided by the standard error of the difference) equals 5.87. For the three-four-year group, d/σ_d equals 4.83. The difference in the case of all the other southern-born groups is small and unreliable; in the case of the nine-ten-eleven-year groups, the difference is in favor of the southern-born, but is also small and unreliable.

Table 4 gives the average grade and the degree of retardation of these various groups. The normal grade for twelve-year-old girls is 7A.

It will be seen that there is again a very definite decrease in the amount of retardation, proportionate to length of residence in New York City. The retardation is appreciable only for those groups which have been in New York six years or less; for all other groups it is only a small fraction of a year. There is practically no school retardation in the case of Negro girls who have had all of their schooling in New York City.

In this study a comparison was also made between the scores of those girls coming from *urban* and *rural* communities in the South. Since the school facilities in the southern cities are usually far superior to those in the country districts, it was felt that there might possibly be some difference between

TABLE 4

GRADE RETARDATION (YATES)

Residence years	1 year	2 years	3 years	4 years	5 years	6 years
No. of cases . . .	30	28	31	19	31	26
Average grade . . .	4B.92	5B.76	5B.79	6A.09	6A.38	5B.94
Retardation yrs. . .	2.04	1.12	1.11	0.95	0.56	1.03
Residence years	**7 years**	**8 years**	**9 years**	**10 years**	**11 years**	**12 years**
No. of cases . . .	23	22	14	14	21	359
Average grade . . .	6B.88	7A	6B.75	6B.75	6B.99	6B.84
Retardation yrs. . .	0.06	0.00	0.13	0.13	0.01	0.08

TABLE 5

MIGRANTS FROM CITY AND COUNTRY (YATES)

Residence years City-born group	1 and 2 years	3 and 4 years	5 and 6 years	7 and 8 years	9, 10 and 11 years
No. of cases	47	37	33	37	36
Average score	76	81.1	94.34	99.4	103.33
Standard deviation	43.20	23.50	24.20	23.50	26.30
Reliability of average	6.25	3.86	4.17	3.56	4.38
Average grade	5B.89	5B.83	6A.45	6B.64	6B.88
Residence years Country-born group	**1 and 2 years**	**3 and 4 years**	**5 and 6 years**	**7 and 8 years**	**9, 10 and 11 years**
No. of cases	9	9	11	7	4
Average score	49.6	67.4	84	104	101.5
Standard deviation	15.30	11.5	27.4	28.7	18.13
Reliability of average	5.1	3.83	8.3	3.72	17.55
Average grade	4B.70	5B.75	6A.15	6B.54	6B.88

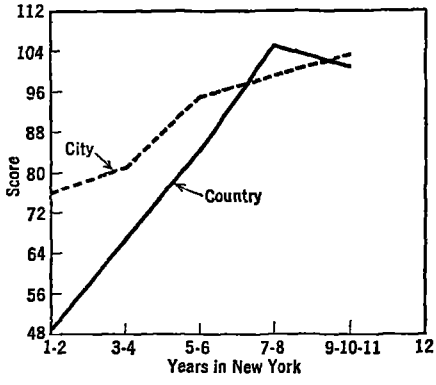
these two groups of migrants. Unfortunately, it was not always possible to determine very accurately the earlier residence of each child. In many cases the families had moved about a great deal before finally settling in New York. It frequently happened, for example, that a family moved from the country to the city in the South before coming North, and in that event the girl might give the name of the city as her previous residence. A study of this kind would require a much more careful personal inquiry into the movements of each family than was possible in this case.

Table 5 and Graph 3 present these results. The number of cases is slightly smaller than those reported in the other tables, as many children knew only the state and not the exact locality of their birth. The classification into city and country groups was based upon the

TABLE 6

GRADE RETARDATION (YATES)

Residence years City-born group	1 and 2 years	3 and 4 years	5 and 6 years	7 and 8 years	9, 10 and 11 years
No. of cases	47	37	33	37	36
Average grade	5B.89	5B.83	6A.45	6B.64	6B.88
Retardation yrs.	1.05	1.09	0.53	0.18	0.06
Residence years Country-born group	**1 and 2 years**	**3 and 4 years**	**5 and 6 years**	**7 and 8 years**	**9, 10 and 11 years**
No. of cases	9	9	11	7	4
Average grade	4B.70	5B.75	6A.15	6B.54	6B.88
Retardation yrs.	2.15	1.13	0.43	0.23	0.06



GRAPH 3. National Intelligence Test Scores and Length of Residence, City- and Country-born (Yates).

census of 1920; a population of 5,000 inhabitants was regarded as constituting a city.

In spite of the small number of subjects from the rural districts, the results are very striking. They suggest that while the rural children start out far behind those from the city, after a number of years of residence in New York the difference disappears. In the case of the one-and-two-year groups, the difference in favor of the city born children is reliable; for the three-and-four-year groups it is almost reliable; for all the others it is small and unreliable.

Table 6 shows the degree of school retardation of city- and country-born children; there is again a marked difference between the city and country children who have been in New York only a short time, and no difference between the earlier arrivals.

The comparison between city- and country-born children was repeated in the study by Marks (see below); unfortunately, the results were not nearly so definite.

(3) The third study with the National Intelligence Test was made between February and June 1932, by Eli Marks on 561 twelve-year-old boys. Table 7 presents his results for the combined two-year groupings.

It will be seen that Marks' results are not nearly so definite as those reported in the other two studies. There is a general improvement among the southern groups, with the very marked exception of the one-and-two-year residence group, which is superior to all others except the northern born and those who have been in New York nine years or more. It is difficult to say just what factor has been responsible for this exception; it may be that schooling in the South has improved so markedly that the recent arrivals are better

TABLE 7

NATIONAL INTELLIGENCE TEST SCORE AND LENGTH OF RESIDENCE (MARKS)

Residence years	1 and 2 years	3 and 4 years	5 and 6 years	7 and 8 years
Number of cases	36	40	38	34
Average score	87.53	78.70	81.18	85.82
Standard deviation	29.9	37.5	28.4	31.5
Reliability of average	5.0	5.9	4.6	5.4

Residence years	9 years and over	Northern-born	Total Southern group
Number of cases	63	350	211
Average score	96.19	90.78	87.02
Standard deviation	32.3	35.1	32.9
Reliability of average	4.1	1.9	2.3

TABLE 8

AVERAGE GRADE AND GRADE RETARDATION (MARKS)

Residence years	1 and 2 years	3 and 4 years	5 and 6 years	7 and 8 years	9 years and over	Northern-born
Number of cases	35	36	37	32	61	340
Average grade	5B.84	6A.17	6A.69	6B.06	7A.04	6B.82
Retardation yrs.	1.08	0.92	0.66	0.47	— 0.02 (accelerated)	0.09

trained; it may also be that this is an accidental finding due to chance factors. Even in the case of the other groups the improvement dependent upon years of residence in New York is not by any means so clear as in the previous studies. None of the differences between the standard (northern-born) group and the various southern-born combinations is reliable, though the chances are 97 in 100 of a true superiority over the three-and-four-year groups and the five-and-six-year groups. Those who have been in New York nine years or more are superior to the northern-born, but the difference is not significant.

Between those subjects born in New York City (212 cases) and the total northern-born group (350 cases), there is no appreciable difference. The average score of the former is 91.34, of the latter, 90.78. Table 8 shows the average grade and the amount of retardation for the various combined groups.

There is a very definite improvement as length of residence increases. The one-two-year group, in spite of its excellent showing in the National-Intelligence-Test scores, was on the average more retarded than any other group. This suggests either a defect in the test, as far as correspondence with school grades is concerned, or inaccurate school placement of the newcomers in the New York schools. For the other groups there is a close correspondence between intelligence

TABLE 9

COMPARISON OF 1931 AND 1932 AVERAGES

Group	1931 average	1932 average	Difference (d)	Sigma difference (σ_d)	$\frac{d}{\sigma_d}$
1 and 2 years	64.21	89.71	25.50	6.5	3.92
3 and 4 years	66.86	79.06	12.20	7.8	1.56
5 and 6 years	72.32	81.86	9.54	7.0	1.36
7 and 8 years	83.58	85.06	1.48	7.6	.19
9 years and over	84.64	97.15	12.51	6.2	2.02
Northern residence	86.93	90.23	3.30	2.5	1.32

rating and average grade. It will be seen that the northern-born children, as well as those who have been in New York nine years or more, are not at all retarded. There is again evidence that a large part, if not all, of the retardation of Negro children in the New York City schools is due to the presence among them of a large number of newcomers from the South.

The study by Marks throws some light on an important problem which arises in connection with this whole investigation. If the subjects who have been in New York six years are superior to those who have been there only two, it is probable, as we have suggested, that length of residence in a superior environment definitely affects the test score. There is, however, another possibility. It may be that the quality of the more recent migrants is inferior to that of the earlier arrivals. The superiority of the six-year over the two-year group may be due, not to environmental influences, but to the fact that each year the northward migrants are inferior to those who preceded them. It is not very probable that such a difference would appear in successive years; one year or even two or three would hardly suffice to alter the conditions of migration sufficiently, although when migrants are compared after, let us say, a ten-year interval, such a difference in selective factors might possibly show an effect.

This problem arose in connection with the Army results as reported by Brigham.[1] He pointed out that those European immigrants who had been in America longer scored higher in the Army tests than the more recent arrivals. His conclusion was that the migrants who came earliest were intellectually superior to those who followed. It may also be that those who have been longer in this country have had more time to learn the language and to acquire the information essential to high scores on the Army Alpha. (It should be added that Brigham no longer subscribes to the general position of his earlier writings.[2])

In the present investigation an attempt was made to throw light on this problem by having two studies made under exactly the same conditions, with similar subjects and the same test, but one year apart. The studies by Lapidus and Marks fulfilled these conditions; they were both on twelve-year-old boys with the National Intelligence Test, the study by Lapidus in 1931 and the one by Marks in 1932.

[1] C. C Brigham, *A Study of American Intelligence* (Princeton: Princeton University Press, 1920).

[2] C. C. Brigham, "Intelligence Tests of Immigrant Groups," *Psychol. Rev.*, 1930, XXXVII, 158–165.

TABLE 10

THE THREE STUDIES COMBINED (LAPIDUS, YATES, AND MARKS)

Residence years	1 and 2 years	3 and 4 years	5 and 6 years	7 and 8 years	9 years and over	Northern-born
Number of cases . .	150	125	136	112	157	1017
Average score . . .	72	76	84	90	94	92

If the findings by Lapidus are due to a progressive deterioration in the quality of the migrants rather than to an environmental effect, the results obtained by Marks in 1932 should be consistently *below* those obtained by Lapidus in 1931. A specific example will make this reasoning clearer. The twelve-year-old boys in the 1931 study who have been in New York four years, for example, arrived in 1927; those in the 1932 study who have been in New York for a similar period arrived in 1928. If the migrants are becoming inferior as time goes on, the four-year group in the later study ought to be inferior to the corresponding group in the earlier one. Table 9 shows the average scores obtained in the 1931 and the 1932 studies.

The 1932 averages are those of Table 4 with the omission of 90 subjects tested in schools which were not visited by Lapidus. Except for the one-and-two-year group, the difference between the 1931 and 1932 averages is not reliable. Whatever difference there is, however, is consistently in favor of the 1932 group, that is, of the more *recent* arrivals. This difference may be due to improvement in the schooling in the South; in any case there is no evidence that the more recent arrivals are inferior. The conclusion is therefore justified that the superior showing of those subjects who have had a longer period of residence is due to this longer residence, and not to any regular change in the quality of the migrants.

This conclusion is strengthened by the results reported in a study by Hand.[3] The comparison of the school records made by migrants in the various years from 1915 to 1930 showed on the whole a tendency toward improvement in more recent years. If anything, the recent migrants are better, not poorer, than the earlier ones, and it is impossible to assume that a less rigid selection is now bringing a less intelligent migrant North.

(4) As the three studies with the National Intelligence Test were made under the same conditions, the results were combined to show more clearly the extent of the environmental effect, as shown in Table 10. The improvement with length of residence is clear and definite. The excellent showing of the one-two-year group in Marks' study raises the level of that group considerably, but not above that of any of the succeeding year combinations. It will be noticed that the range of average scores is from 72 for the one-two-year group to 92 for the control group; this suggests that the I.Q. remains constant only when there is relative constancy in the environment.

(5) One study was made of 536 twelve-year-old girls, between February and May 1931, by Isabel D. Traver, with the Otis Self-Administering Examination, Intermediate Form.

These results are not nearly so definite as those obtained in the National Intelligence Test studies. There is practically

[3] F. L. Hand in O. Klineberg, *Negro Intelligence and Selective Migration* (New York: Columbia University Press, 1935), pp. 16–23.

TABLE 11

OTIS SCORES AND LENGTH OF RESIDENCE (TRAVER)

Residence years	1 and 2 years	3 and 4 years	5 and 6 years	7 and 8 years	9 and 10 years
Number of cases	28	37	45	19	23
Average score	22.8	22.5	21.5	26.2	33.1
Standard deviation	12.6	9.6	10.6	13.7	13.7

Residence years	11 years and over	New York-born	Total southern group
Number of cases	18	243	170
Average score	31.4	30.9	25.1
Standard deviation	13.8	15.1	13.0

no difference between the one-two, three-four and five-six-year groups; it is only with the seven-eight-year group that any correspondence between test score and length of residence in New York becomes evident. Whether this is a function of the test or of accidents of sampling, it is impossible to say. In any case there is still a very marked difference between the earlier arrivals (six years or less) and the later ones (seven years or more), and this is clearly in favor of the latter. While the environmental effect does not appear very early in this study, it is still there. The northern-born group is reliably superior to the one-two, three-four, and five-six-year groups; it is definitely, but not quite reliably, superior to the seven-eight-year group, and only slightly and unreliably superior to those of more than eight years' residence in New York. The northern group as a whole is also reliably superior to the southern-born group as a whole. There was no difference between the girls born in the West Indies (30 cases) and those born in the South (170), and only a slight superiority of those born in New York City over those born elsewhere in the North. In general it may be said that these results are corroborative of those found in the National Intelligence Test studies.

(6) In another part of the study of Negro children, the attempt was also made to see whether the city environment had any effect in raising the test scores of children born in the country. It is obvious that there is a very marked difference in the educational and cultural backgrounds of rural and urban Negro communities in the South; it is even probable that in many cases the difference in opportunity is greater than that between North and South. In this part of the study it was not found possible to use early school records made by the migrants before they reached the city, as the rural schools

TABLE 12

NATIONAL INTELLIGENCE TEST SCORE AND LENGTH OF RESIDENCE IN SOUTHERN CITY

Years	Number of cases	Average score
1	39	38.3
2	25	43.2
3	36	44.7
4	47	62.5
5	52	56.2
6	53	62.2
7 or more	165	68.7
City-born	359	74.6

rarely kept record books which might be considered adequate. There were, however, in the three southern cities visited—New Orleans, Nashville, and Atlanta—a large number of children in the Negro public schools who had come from surrounding rural communities and who differed in the number of years of their residence in the city. In their case also, therefore, the same technique was applied as in the New York studies, and the results were analyzed to see whether there was any relation between test scores and length of exposure to a more favorable environment.

The National Intelligence Test, Scale A, Form I, was administered by the writer in 1930 to 786 twelve-year-old Negro boys in the public schools of New Orleans, Atlanta, and Nashville. The results are shown in Table 12. It will be noticed that in this study those boys who had been in the city seven years or more were included in one group; it was felt that this could legitimately be done since all of them had had all of their schooling in one or another of the large cities.

In addition a small group of boys from the little village of Thibodaux, La., was also tested. There were only 11 subjects and the results therefore cannot be taken too seriously, but it is at least suggestive that their score was 47, or slightly above that obtained by the group of migrants who had lived less than three years in the city. A more extensive study of rural children is indicated, but as far as these results go, they suggest that the migrants to the city are not superior at the outset to those who remained in the country, but that their later superiority is due to the gradual influence of the better environment. The improvement is rapid and definite; with the one exception of the four-year group, the relationship between average score and length of residence is perfect. There is a statistically reliable superiority of the city-born group over all the country-born groups, as well as a statistically reliable superiority of all the groups which have been in the city four years or more over those which have been there three years or less. There can be no doubt in this case that the environment plays an exceedingly important part in determining the test score.

5.

GESTURAL BEHAVIOR AND SOCIAL SETTING

By David Efron and John P. Foley, Jr.

The following is a preliminary report of an objective study of the gestural behavior of Italian and Jewish immigrants and descendants of immigrants in New York City. The problem was (1) to determine whether there are any standardized "group" differences in the gestural behavior of certain "racial" groups, and if so, (2) to discover what becomes of these gestural patterns in members and descendants of the same groups under the impact of the different environmental stimulation or social setting. The present investigation is closely related to similar studies on posture, walking and other motor habits, which are being conducted by the same investigators.

The following groups were employed as

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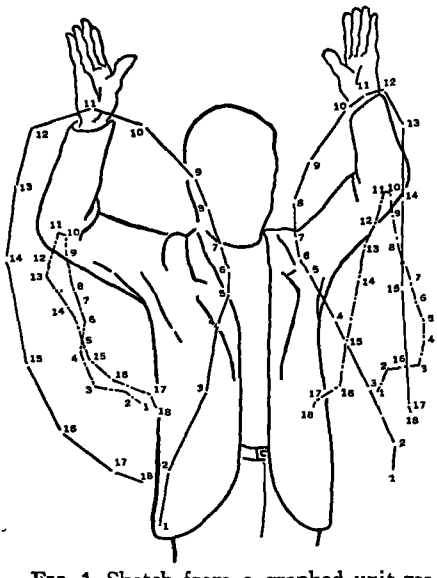


FIG. 1. Sketch from a graphed unit-gesture (traditional Italian), illustrating graphing technique employed.

subjects: (1) "traditional" [1] Italians living in "Little Italy," New York City; (2) "traditional" Jews living in the East Side Ghetto, New York City; and (3) "assimilated" [2] Italians and Jews, both living in similar "Americanized" environments.

The methods used included: (1) direct observation of gestures in natural situations; (2) sketches made by the American artist, Mr. Stuyvesant Van Veen [3] of New York City, under the same conditions; (3) motion pictures studied by (*a*) repeated observation and judgments of naïve observers and (*b*) graphs and charts, together with measurements and tabulation of the same. The graphs were obtained in the following manner. The film, taken with a constant speed moving picture camera at speeds varying from 16 to 64 frames per second, was projected frame by frame upon coordinate paper. The position of motile parts, such as wrist, elbow, etc., was marked in successive frame projections, and when joined gave a precise representation of the fluent gestural behavior pattern. Figure 1 illustrates this graphic technique in the case of a traditional Italian. It will be noted that there are four distinct lines of motion portrayed, the continuous lines representing the paths of movement of the right and left wrists, and the broken lines depicting the accompanying motions of the respective elbows. The numbers indicate the direction of movement, representing the position of the given part in each successive frame projection.[4]

A study of the curves gained by this method, as well as a consideration of the data obtained by means of the other more qualitative methods enumerated above, yields the following results to date. They are to be taken as preliminary and tentative, rather than as final and conclusive. We shall briefly summarize certain of the characteristics of the gesture patterns of the Italian, Jewish, and assimilated Italian and Jewish groups, respectively. The present results are based upon an analysis (cf. above methods) of approximately 5,000 feet of film, taken and studied over a period of two years, and about 2,000 sketches made from life. Since there is a wide diversification in the behavior patterns within the so-called Jewish as well as Italian groups, it must be kept in mind

[1] By "traditional" is meant both foreign- and American-born individuals who have retained the language and mores of the original group, remaining relatively impervious to the influence of the "Americanized" New York environment.

[2] By "assimilated" is meant those individuals of the same descent who have more or less broken away from the customs of the respective original groups, identifying their general behavior with that of the American or "Americanized" groups in New York City.

[3] The writers wish to make acknowledgments to Mr. Van Veen for his skillful pictorial contribution to this investigation.

[4] Since the original pictures, from whose graph the present sketch was made, were taken at a speed of 16 frames per second, the gestural motion shown in Figure 1 required $\frac{18}{16}$ or approximately 1.13 seconds for its execution.

that when using the former term we refer to Jews chiefly of Lithuanian and Polish extraction, whereas by "Italian" we refer to Southern Italians, chiefly from the vicinity of Naples and from Sicily. In each case, the specific ethnic origin of the individual was established by noting the particular dialect he used; in doubtful cases, this was supplemented by direct interrogation after his gestural behavior had been recorded. It should be noted that both motion pictures and sketches were obtained in absolutely spontaneous situations in the everyday environments of the people concerned, who never knew they were subjects of an investigation.

We shall now attempt to give a tentative description of the "characteristics" [5] found in the gestural patterns of traditional and assimilated groups. We shall begin with the *Traditional Italians and Jews*, and shall first deal with the spatio-temporal characteristics of the gestural behavior, i.e., as "movement," and then proceed to a consideration of the strictly linguistic aspects of such behavior.

With regard to the parts of the body used in gesticulation, it may be said that whereas the Italian exhibits a tendency to use preferably his arms, in a more or less concerted manner, the Jew frequently employs his head, as well as his arms, hands and fingers, in a functionally differentiated way. The Italian exhibits a marked synergy in the use of the three parts of his arm, his upper arm, forearm and hand moving from the shoulder in a concerted fashion. The head as well as the digital gestures are rather typical of the Jewish "expressive" movement. In contrast, the head and fingers rarely participate in the Italian colloquial gesticulation, although the latter are involved in his pictorial and symbolic gestures (cf. below).

The form of the movement also shows marked contrast in the two groups. Generally speaking, the gestural movements of the traditional Eastern Jew are more complex in design than those of any of the other groups observed. These motions often pass from one plane of movement to another. As a rule, they exhibit an angular change in direction, resulting in a series of zigzag motions which, when graphed, present the appearance of an intricate and composite embroidery. The movement is frequently sinuous in character, one of the most common examples resembling a figure 8 in general form. In contrast to the Jew, the Italian is inclined to continue in the same direction until completion of the entire gesture segment. This fact, together with the usual restriction of the movements to the spherical "surface" plane (cf. below), necessarily creates an effect of relative simplicity in the Italian movements. The motion itself is likely to be spiral or elliptical in form. In the course of the movement, moreover, the Italian usually holds his hand in a straight line with his arm, in contrast to the Jew, who is more inclined to keep it at an angle to the forearm. Furthermore, in the Italian the palm is usually curved and prone, whereas the Jew often holds it flat and in a supine position.

Likewise with regard to laterality (unilateral or bilateral) as well as symmetry of movement, pronounced differences are noted. In the Jew, gesticulation usually occurs with one hand and arm, and if two are used, they are likely to be employed in a sequential rather than simultaneous fashion. The movement is predominantly nonsymmetrical. In addition to the trend toward unilaterality and asymmetry, the Jewish gestures also exhibit a tendency toward sequential transference of motion from one arm to the other. This latter characteristic may be figuratively termed "ambulatory" gesture or "gestural locomotion" of discourse. In marked con-

[5] The term "characteristic" is employed to refer to general trends or statistical probabilities in the data, rather than in the sense of "types," the latter, needless to say, being products of logical abstraction.

The Jewish gestures are seldom pictorial or "physiographic" and rarely symbolic (of objects).[10]

The "ideographic" type is rarely observed among the traditional Italians, whose gestures are most frequently pictorial, or "physiographic," and symbolic (of objects). The latter types represent an imitation or re-enactment with the body of the attributes or actions being verbally described. The physiographically symbolic gestures of the traditional Italian are very common, and imply definite meaningful associations. These may be used to accompany verbal intercourse or may even function as the exclusive means of communication (pantomime). We have been able to trace the historical continuity of many of these pictorial and symbolic gestures from ancient Rome to contemporary Italy. Some of the movements are strikingly similar both in their form and in their content. In general, there is very little difference between the gestural "vocabulary" (approximately 125 "gesture-words") of the traditional Neapolitan in New York City and that of his ancestor in Europe one century ago, as recorded by Andrea di Jorio in his *La mimica degli antichi investigata nel gestire napolitano*, published in 1832. This also holds true for the dictionary of Sicilian gestures published in the latter half of the nineteenth century by Pitré, in his *Biblioteca delle tradizioni popolari siciliane*. No such formalized gestural "vocabulary," covering a wide range of linguistic possibilities, is found among the traditional Jews (only 6 pictorially symbolic movements have been observed by us in this group).

In our study of the pantomimic gesture, we were fortunate in securing the assistance of certain prominent Italian and Jewish actors in New York City.[11] The former had no difficulty in enacting for us a series of "dumb-shows," the meaning of which is entirely clear to any person who is familiar with the system of gestural symbols used by their group. The latter, on the contrary, though they were as proficient in their dramatic ability, and despite the large amount of gestural movements displayed in their performance, were unable to create any specifically meaningful pantomime per se, based on "Jewish" symbolic gestures.

All of the previous material has dealt with traditional Jewish and Italian groups. We come now to a consideration of the *Gestural Behavior of the Assimilated Groups*. The assimilated Jewish subjects were obtained from several different sources: (*a*) upper- and middle-class Americanized New York Jews found at summer resorts in the Adirondacks and at the Saratoga race track; (*b*) upper- and middle-class groups found at various meetings and social and religious gatherings in New York City; (*c*) Jewish students at Columbia University, etc. The assimilated Italians, also coming from the upper- and middle-class groups, included: (*a*) members and participants in Italian clubs and fraternities (e.g., Casa Italiana at Columbia University); (*b*) those found at various meetings and social gatherings in New York City; (*c*) Italian students at Columbia University.

The data obtained on the assimilated groups indicate very clearly that the above gestural characteristics, typical of the traditional Jew or traditional Italian, disappear with the social assimilation of the individual, Jew or Italian, into the so-called Americanized community. On the whole, gesticulation is much less frequent in such assimilated groups, there being a diminution of movement as com-

[10] The "symbolism" actually involved is of a "logical" character, i.e., more of a "*significatio*" than a "*demonstratio*," in Cicero's terminology, depicting less the "objects" of thought ("referents") than the pattern and "direction" of the referential activity itself ("reference").

[11] Signorina Baldi, Signor Sterni, and Signor Milliaccio (Italian); Mr. Buloff and Mr. Ben-Ami (Jewish).

pared with the traditional groups. The more assimilated the individual, the fewer Jewish or Italian gestural traits he was found to possess. The fully assimilated Jews and Italians do not show the wide differences found in the traditional groupings (cf. above), and both resemble gesturally the specific American group to which they have become assimilated. With regard to the gestural behavior of the American, our data suggest that, as in the case of the traditional Italian and Jewish groups, there is a pronounced heterogeneity both in amount and in type. In general, the gestural assimilation of the Italians and Jews appears to be conditioned by the particular social and economic stratum to which they have become adapted. Thus, certain Jewish groups of the upper social and economic strata show great restraint in their motions, when movement is present at all, even when engaged in heated argument,[12] and resemble gesturally the so-called Anglo-Saxons of the same social and economic environments. On the other hand, assimilated Jewish groups belonging to a different social milieu exhibit relatively frequent and vigorous gesticulation, although very unlike that of the traditional Jewish groups.

Nor could the differences in gestural behavior between traditional groups and the lack of such differences between assimilated groups be explained on the basis of "generation." It was found, for example, that the American-born students at Yeshiva College, a traditional Jewish school in New York City, exhibited traditional gestural behavior similar to that found in the Ghetto, while the American-born Jewish subjects obtained at an exclusive Fifth Avenue club were gesturally assimilated, showing no "orthodox-Jewish" gestural characteristics.

It is also interesting to note that, conversely, many Americans who had had intimate acquaintance with the traditional groups were observed to display the traditional Jewish or Italian gestural habits. Furthermore, several cases of Jews who had been exposed over a period of time to Italian gestural (and other) stimulation, as well as cases of Italians who had become assimilated to Jewish culture, showed that in such cases the gestural behavior conformed to that institutionalized by the social group to which the individual had become assimilated, rather than to the gestural behavior of the so-called "racial" group to which the individual belonged. Lastly, mention might be made of certain observations on more specific cases of what might be termed "hybrid" gesture, which served to indicate that the same individual may, if simultaneously exposed over a period of time to two or more gesturally different groups, adopt and combine certain gestural traits of both groups. In some cases, for example, it was found that the gestures accompanying the same topic of conversation may be different, depending upon other elements in the stimulus situation, as is illustrated by the case of an Italian who gesticulates like a traditional Italian when addressing an Italian group in their own language, and in an assimilated fashion when speaking in English to an American audience.

The results indicate that in the case of the assimilated groups, it is not so much a matter of uniform "assimilation" to gestural patterns typical of the so-called American or Anglo-Saxon culture as a whole, but rather an assimilation to the particular gestural customs characteristic of the specific social stratum of the American group with which such individuals have become associated.

In summary, a marked disparity was found between the patterns characteristic of most of the gestures of the traditional Jewish and Italian groups investigated, and a lack of such contrasting

[12] The race-track betting and ensuing discussions yield data which are conclusive in this respect.

patterns in the corresponding assimilated groups. The latter gesturally resembled each other and the Anglo-Saxons. Thus, social stimulation rather than so-called "racial" descent seems to have been operative.

6.

DOES CULTURE APPRECIABLY AFFECT PATTERNS OF INFANT BEHAVIOR?

By Wayne Dennis

Introduction

In recent years two fields which have received a considerable amount of attention have begun to impinge upon each other in regard to the roles which they attribute to biological and to social influences in the development of the individual.

One of these is the psychology of infancy, which in the past 20 years has amassed an imposing quantity of data. Many of the investigations in this field have stressed explicitly the importance of "maturation" in the development of infant behavior while nearly all of the studies have assumed implicitly that a child is a child wherever he may live and that findings concerning the child in America are applicable in a universal manner.

At the same time, through the efforts of a different set of workers, there has come about a wide recognition of the extent to which individual behavior is determined by the folkways and mores, or by the more inclusive conceptual entity "culture." That our language, our food preferences, our ambitions, our manner of daily life are set in large measure by our social environment and are subject to wide variation from society to society is beyond dispute. Is this true for infant behavior as it is of adult behavior?

It may be that this apparent difference between the views of child psychology and those of anthropology is due to the fact that the data of the two disciplines refer to different periods in the life cycle of the individual. The anthropologist has largely neglected the earlier life periods. On the other hand, the psychologist may have drawn as a picture of infancy an account which is true only for his own culture. At any event it is clear that information concerning children of other cultures is necessary to solve the contradiction and to answer the question as to the age at which behavior typical of various societies first appears. The question with which I am more specifically concerned here is the more limited inquiry as to whether or not cultural differences are apparent in the first year. The subsequent life periods will receive more extended treatment at a later time.

Infant Care Among the Hopi and the Navaho

The groups among whom I have worked—several Indian groups in Arizona and New Mexico, but chiefly the Hopi and the Navaho—are excellent for the present purpose because child care among these peoples presents some marked contrasts to our own ways of treating infants. I shall indicate first the chief differences between the Hopi and the white American treatment of the infant during the first year of life, and shall then comment briefly on child care among the Navaho.

One custom which strikes the observer is the binding and cradling of the Hopi

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child. As soon as the infant is born he is wrapped tightly in a cotton blanket, which holds his arms extended at his sides. He is then placed on his back on a board of appropriate size and bound to it by strips of cloth which pass around both child and board and which make it impossible for the infant to turn his body or even to flex his legs.[1] When the infant is cradled in this fashion his condition prevents a number of actions which are common among our babies, such as bringing the hands to the mouth, playing with the hands, watching the hands, and putting the feet in the air. During the first three months the infant is released from his bindings only when being cleaned and bathed, which means that he is free only about one hour daily. He nurses while fastened to the board and sleeps in the same position. After three months, when he spends more time awake, he is released from the board for longer and longer periods. When released he is held in arms or is placed on his back on the floor. He is not placed on his abdomen until he can turn himself from the supine to the prone position, which means that prior to that time he cannot practice the reaction of head up when prone or chest up when prone nor can he engage in any of the elements of creeping. The infant retains the board for nursing and sleeping for a variable period which is only six months in some cases and which in other instances extends beyond the first year.

Other contrasts between the Hopi and the white American child must be put more briefly. Fortunately they do not require extended description, but they are none the less marked for being capable of expression in a few words.

Whereas some American infants are bottle-fed almost from the beginning and many are breast fed but a short time, all Hopi infants are breast fed, none are weaned under one year of age and many are not weaned before two years. Furthermore, American infants are usually placed on a rigid time schedule of feedings with an interval of several hours between feedings. The white infant is often expected to cry for a period before being fed. The Hopi infant, on the other hand, is nursed as soon as he cries, and consequently nurses frequently and cries very little. The breast is used as a pacifier even though the cause of crying is pain or fright and not hunger. Among the Hopi there is no feeling that crying is something to be expected from the infant; there is therefore but little frustration during infancy and little adherence to predetermined schedules and routines.

There is much less training of the Hopi than of the American infant. For example, American mothers and infants spend much time and energy on the early establishment of toilet habits whereas no training in this respect is imposed upon the Hopi child until he can walk and can understand simple commands, when he is told to go outside the door. Likewise, there is a noticeable lack of avoidance training among Hopi infants. The American child, as soon as he can creep, is admonished not to touch radiators, windows, and electric fixtures; not to soil walls, furniture, curtains, books, pictures; and not to handle pieces of property such as spectacles, watches, jewelry, cigarettes, ash trays, and dishes, which are often left within his reach. The Hopi infant has few such prohibitions. In part this is because the majority of these valuable pieces of property are not a part of the material culture of the Hopi. But even in regard to the property which the Hopi do have, there is less of the feeling that the child should let it alone. Nor is he exhorted to keep himself clean as is the white child. Only two objects of avoidance exist in his environment, the household fire which is often an exposed one,

[1] W. and M. G. Dennis, "Pueblo Cradles and Cradling Customs," *Am. Anthropol.*, 1940, XLII, 107–115.

and the edge of the cliffs, from which he may fall. The Hopi expedient in the face of these dangers is to have some one with the infant always rather than to depend upon the effectiveness of infant training.

Navaho child care during the first year differs only slightly from that just described for the Hopi. The Navaho cradle board is slightly different in form, being made of two boards tied together so as to form a trough-like cradle board instead of a flat one. The Navaho baby is carried about on the cradle to a greater extent than is the Hopi child, the former often being taken on horseback and transported to the fields. Consequently the restriction of the Navaho is even greater than that of the Hopi, and the Navaho mother discards the cradle at a later date. The training in avoidance and in elimination is practically identical for the two groups.

Effects Upon Behavior

The present problem is to determine whether Hopi and Navaho infant care, which is certainly different from our own, has any effects upon behavior. One may look for these effects in two periods, which are arbitrarily divided, namely, in infancy itself and in later life. This discussion is limited to the effects which may appear during infancy which is here defined as the first year of life. It is admitted that it is equally important, or even more important, to consider whether or not consequences can be found in the period subsequent to infancy, but that topic must be reserved for separate treatment.

One aspect of behavior which the customs of child care undoubtedly influence is the frequency with which a given infant behavior pattern is elicited. Crying provides a convenient response for a concrete example. Hopi infants cry rather little. One can be in a village whose arrangement is more "intimate" than that of a modern apartment house and seldom be aware of the babies of the community. The reason lies in the fact that infants are not denied food when they want it, are not denied objects which they want, are not put to bed when they are not sleepy and are not fed when they are not hungry. The "goodness" of primitive infants, which has often been noticed, issues from the fact that they are not provoked into crying. When such provocation is given, as occasionally it must be, the infants of a primitive tribe cry as readily as do ours and cry from the same causes.

Another effect of culture upon infant behavior is this: the infant in different cultures becomes conditioned to different objects and becomes accustomed to different procedures. This fact is as apparent in different homes among ourselves as it is between cultures. An infant who is hungry but who has never been fed from a bottle will not react to the sight of a bottle as does one who gets his nourishment from that source. No Hopi or Navaho infant would react to the sight of a nursing bottle as many white infants do, because for the former it has never become a symbol for food. The culture determines what shall be symbolic for feeding. It determines the *content* of the conditioned reflexes of the infant.

The culture also determines the customary routine of the infant and the infant reacts to a breach of that routine. A good example of this is to be found in the field of the sleeping arrangements of the child. The child who has become accustomed to a particular mode of sleeping will not readily go to sleep under different conditions. We would not expect a white child of six months to go to sleep promptly if at bedtime he were strapped to a cradle board for the first time. Conversely we find that a Hopi infant who has slept nowhere except on the cradle board becomes very restless and cannot readily fall asleep when the board is not available. This is a common testimony of

Hopi mothers who have gone visiting or gone to an all-day ceremony without including the cradle board among the luggage.

However—and to my mind this is the most important point—the patterns of response of Hopi, Navaho, and white infants, are identical. The Indian infant may not cry as much as the white infant, but the cries are the same. Quite different things may keep the two kinds of infants from going to sleep, but the reactions are not distinguishable. The sleepy infant frets, fusses, tosses and cries, regardless of culture.

The behavioral similarity of American and Southwestern Indian infants needs to be examined in detail, especially at points at which we might expect a difference. One of these is motor development, for we have seen that Hopi and Navaho cradling customs during most of the day limit the random activity of the infant, force the arms and legs into an extended position instead of the usual flexed position, prevent manipulation of the hands and make it impossible for the child to rest on the abdomen. Nevertheless, observation of a large number of Hopi and Navaho infants of various ages, shows that the behavior characteristic of the different ages is the same for the two groups. In spite of the enforced extension of the limbs, the young Indian infant when freed from his bindings for the bath or for the changing of bedding, takes the usual flexed position. Although his hands are held downward perhaps 23 hours in 24, when he is at liberty he puts them to the mouth and carries objects to his mouth as do white babies. He reaches for objects and handles them at approximately the same time as do white children. He reaches for his toes and puts his toes in his mouth. Sitting, creeping, and walking follow in the usual sequence.

Social behavior is identical in the two groups despite differences in infant care. The Hopi infant develops social smiling, social laughter, vocalization, crying at strange noises, staring at strangers, and crying at strangers just as do American infants.

These conclusions are based on a considerable number of observations made during two summers' residence among these groups. A large number of infants of all ages were seen. It was not a part of my research plans to subject the infants to standardized tests such as the infant tests of the Gessell or the California series. An attempt to apply rigid conditions of examination would meet some difficulties among these people. It may be that procedures comparable to those used in infant clinics might be followed, but at the time that the observations here reported were made I did not think it wise to run the risk of losing the rapport which had been established by suggesting procedures which would be disliked by the Indian mothers. On the other hand it was possible to make many observations which did not require the introduction of test materials foreign to the native culture, and such observations were made on many occasions. These are summarized as brief individual protocols in the following pages. The complete lack of such data seems to warrant their publication. The descriptive terms are defined in a previous publication.[2]

It was impossible to record entirely comparable data for all cases. For one thing, some of the infants were seen at public ceremonials where the spontaneous behavior of the infant could be noted but where tests for other behavior could not be introduced. Likewise the length of the periods of observation varied. Some children were observed continuously for as long as an hour; others were seen for only a few minutes.

[2] W. and M. G. Dennis, "Behavioral Development in the First Year as Shown by Forty Biographies." *Psychol. Rec.*, 1937, I, 349–361.

PROTOCOLS OF THE BEHAVIOR OF NAVAHO AND HOPI INFANTS *

No. 1

Navaho girl, 1 month old—fixated adult's face, opened mouth when touched by adult, sucked adult's finger.

No. 2

Hopi boy, 2 months old—kicked, random arm movements, vocalized, turned head to fixate persons and moving objects.

No. 3

Navaho girl, 3 months old—smiled at persons, vocalized to persons, held head erect, visual pursuit of persons, could not reach nor sit alone.

No. 4

Navaho girl, 4 months old—smiled at persons, sat with slight support, lifted head when supine.

No. 7

Hopi girl, 5 months old—held head erect, turned head to follow persons, smiled and vocalized at persons, hands clasped each other, grasped own toes, carried toes to mouth, hand to mouth, chewed own fingers, stood supported under arms, would not reach for objects held before her.

No. 10

Hopi girl, 6 months old—stared at strangers, sat with slight support, reached for and grasped objects, objects carried to mouth, cried when object taken away, cried when put down, grasped own toes.

No. 14

Navaho boy, 7 months old—sat alone, reached for and grasped objects.

No. 22

Navaho boy, 8 months old—sat alone, scooted while sitting.

No. 24

Navaho boy, 9 months old—sat alone, reached for and grasped objects, shook objects and patted objects, carried objects to mouth, turned supine to prone and prone to supine, stood supported under arms, jumped up and down when supported under arms, pulled self to sitting, got into creeping position but did not creep.

No. 26

Navaho boy, 10 months old—sat alone, grasped own feet, reached for and grasped objects.

No. 31

Navaho girl, 11 months old—sat alone, turned away from strangers, crept, could not pull self to standing.

No. 36

Navaho girl, 12 months old—crept, walked holding furniture, could not walk alone.

The ages in all cases were determined by questioning the mothers. The Hopi ages are in terms of our calendar months and are quite accurate since the young Hopi mothers know the birthday of their children. However, only a few of the Navaho make use of our calendar, and the Navaho estimates are less precise, the estimates being largely in terms of lunar months which, however, are not observed very accurately. Nevertheless the error within the first year cannot be very great.

It seems next to impossible to quantify data of the sort here obtained, but a careful examination of the protocols will convince the reader that the development of the Indian infant is essentially similar to that of the white infant.

Comparison data may be obtained from observations of the nontest responses of white infants. Recently the material of 40 biographies of white babies has been compiled so as to show all of the responses which were reported for at least 10 of 40 infants which have been most extensively studied. *Every one of the responses of white infants was observed*

* Only one protocol at each age level is here reproduced.

among the Indian infants and no response was observed among Indian infants which has not been noted commonly among white subjects.

The question as to whether or not the age of onset of the various infant responses is appreciably affected by Hopi and Navaho child care cannot be settled by the data at hand. To solve this question would require many more data, and not merely a greater quantity of data but also data gathered under diverse conditions, for if one were to find a difference between Indian and American infants in the age of onset of various responses this difference might be the result of a variety of causes. Among possible causes of a slight difference in rate of development might be difference in nutrition, in altitude, and in race as well as differences in child care.

Thus far the onset of only one response has been studied.[3] In this investigation it was found that Hopi, Navaho, and Rio Grande Indian children began to walk alone at a greater age than do white American children. It was also found that Hopi children who had been reared in two progressive villages and who had not used the cradle board walked no earlier than Hopi children who had been subjected to the restraint of the cradle.

In this regard it is worthwhile to report a check upon the observation of an earlier author. One of the first Americans to write about the Hopi was Bourke, who witnessed the snake dance at Walpi in 1881 and subsequently wrote a book[4] based on his brief visit to the Hopi country. At that time the Hopi made considerable use of the rooms on the second and third stories of their houses. Families living in these stories necessarily had to use ladders in going to and from their homes. Bourke reported in an incidental manner that children learned to go up and down these ladders before they could walk, an observation which probably meant little to Bourke but which is very important for theories of motor development. I have been able to determine that Bourke's casual observation was entirely erroneous. Mothers, both young and old, report that such a thing is unheard of and that children, now and formerly, cannot go up and down ladders before two and three years of age.

General Conclusions

Further research may find slight quantitative differences between white infants and the infants of Southwestern Indians. However, the present evidence shows clearly that the general picture of infancy in the two cultures is the same in spite of the diversity of the customs surrounding child care. The differences in behavior which may be found upon more detailed study should not be permitted to overshadow the fundamental resemblance of Indian and white infants.

This article has raised chiefly the question of the similarity of infants in different *cultures*. But we have been concerned, of course, not only with two cultures but with two *races* as well. It scarcely needs to be indicated that the present observations not only fail to reveal any behavior which is peculiar to the infants of either culture but likewise they indicate that there are no gross differences in infant behavior as between the two racial groups which have been compared.

I would not deny that beginning roughly at one year of age the patterns of the infant do begin to vary in accordance with the culture of the group. For one thing, language patterns which begin at about one year are definitely cultural patterns. Shortly after one year of age the child may also begin very simple dramatic play in which he imitates adult patterns which are distinctive of his cultural group. Among the Hopi these in-

[3] W. and M. G. Dennis, "The Effect of Cradling Practices upon the Onset of Walking in Hopi Children." *J. Genet. Psychol.*, 1940, LVI, 77–86.

[4] J. D. Bourke, *The Snake Dance of the Moquis of Arizona* (New York: Scribner, 1884), p. 371.

clude imitation of ceremonial dance steps and the imitation of adult songs. The onset of distinctive cultural patterns naturally varies from child to child, but I feel, at least so far as Hopi-Navaho-American comparisons are concerned, that distinctive patterns of behavior do not emerge until after one year of age. This corroborates the view that the characteristics of infancy are universal and that culture overlays or modifies a more basic substratum of behavior.

7.

THE CHANGE FROM DRY TO WET RICE CULTIVATION IN TANALA-BETSILEO

Part I by Ralph Linton
Part II by Abram Kardiner

PART I

The culture we have described elsewhere is that of the Tanala of the dry rice cultivation. Wet rice cultivation, which introduced so many elements in social change that the whole culture was eventually altered, was borrowed from their Betsileo neighbors to the east.* It was at first an adjunct to dry rice carried on by individual families. Before the new method was introduced on a large scale, there were already rice swamps of permanent tenure, which never reverted to the village for reassignment. But land favorable for this use was very limited, because of natural factors. Thus there gradually emerged a group of landowners, and with the process came a breakdown in the joint family organization. The cohesiveness of this older unit was maintained by economic interdependence and the need for cooperation. But an irrigated rice field could be tended by a single family, and its head need not recognize any claim to share it with anyone who had not contributed to its produce.

This group of permanent rice sites formed the nucleus of a permanent village, because the land could not be exhausted as was the land exploited by the dry method. As land suitable for wet rice near the village was presently all taken up, the landless households had to move farther and farther away into the jungle. So far away would they be that they could not return the same day. These distant fields also became household rather than joint family affairs.

The moving of the older unit from one land site to another had kept the joint family intact. But now single landless households were forced to move, while there were in the same unit landowners who had a capital investment and no incentive to move. The migrant groups were thus cross sections of the original lineages. Each original village had a group of descendant villages, each one surrounded by irrigated fields and private ownership.

The mobile villages had been self-contained and endogamous. The settled villages were much less so. The joint family retained its religious importance, based on the worship of a common ancestor, even after its component households had been scattered. Family members would be called together on ceremonial occasions, and thus the old village isolation broke down. Intermarriages became common. In this way, the transformation

From Abram Kardiner and Ralph Linton, *The Individual and His Society* (New York: Columbia University Press, 1939). Copyright 1939 by Columbia University Press. Reprinted by permission of the authors and the publisher.

* The Tanala and Betsileo societies are to be found on the island of Madagascar.

from independent villages to a tribal organization took place.

The process brought further changes in the patterns of native warfare. The old village had to be defended; but not at so great a cost nor with the necessity for permanent upkeep. When the village became permanent the defenses had to be of a powerful kind, involving big investments and permanent upkeep.

Slaves, who were of no economic significance in the old system, now acquired economic importance. This gave rise to new techniques of ransom. Thus the tribal organization grew in solidity, and with the change the old tribal democracy disappeared. The next step was a king at the head who exercised control over the settled elements but not over the mobile ones. The kingdom came to an end before any adequate machinery of government could be established. This king built himself an individual tomb, thus breaking an ancient custom.

The changes were therefore, a king at the head, settled subjects, rudimentary social classes based on economic differences, and lineages of nothing but ceremonial importance. Most of these changes had already taken place among the Betsileo. The cooperative system made individual wealth impossible. Nor was the change devoid of serious stresses on the individual; a new class of interests, new life goals, and new conflicts came into being.

One of the Tanala clans, the Zafimaniry, was one of the first to take up the new wet rice cultivation. They continued it for a time, but finally abandoned it, and returned to the dry rice method. They offered as the reason for returning to the old method the fact that they had been attacked by an enemy, which scattered the men of the various households. The tribe tabooed the raising of wet rice, and still continues to refuse to take up wet rice despite depletion of the jungle.

Although we are not in possession of all the facts, and a great many unknown factors may have operated, we are justified in looking into the culture of the Betsileo for a contrast with the ultimate changes coincident with wet rice culture. The traditions of the Betsileo have it that there was a time when all people were equal and all land was held in common. Moreover, the cultural similarity to the Tanala leaves no doubt that in the main we are dealing with two cultures springing from a cognate source. Or to be more accurate, the changes we find in Betsileo culture were engrafted on a culture similar in all respects to the one we found in Tanala.

Whatever adventitious changes took place, basically we can regard Betsileo as the Tanala culture, after all the changes consequent upon wet rice had become consolidated, organized, and institutionalized. We are therefore observing an important experiment in the dynamics of social change.

In Betsileo society the gens is still the foundation of social life, descent being traced through the male line from a single ancestor. But the organization of the village as in Tanala culture is gone; it apparently disappeared according to the steps outlined above.

The local clan groups were administered by heads appointed by the king, one head for each gens. Members of several gentes live in the same village. Instead of free access to gens lands, as in Tanala culture, we have here a rigid system of ground rent levied on the land in the form of a proportion of rice produce.

Instead of the previous democracy as among the Tanala there is a rigid caste system with a king at the head, nobles, commoners, and slaves. The powers of the king are absolute over the life and property of everyone. The commoners are the bulk of the population, the nobles, to all intents, feudal lords whose chief control is over land by royal assignment; the slaves are war captives or their descendants.

The powers of the king far exceeded

those of a lineage head in Tanala society and in some ways were greater than those of the ancestral ghosts. He could take the life, property, or wife of anyone; he could elevate and degrade the status of anyone at will, and no redress was possible. In accordance with these powers, a great many secondary mores, which accentuate the enhanced prestige of the king, are present. There are taboos about his person and concerning his children; there are special clothes forbidden to anyone else; special words must be used to designate the condition or anatomy of the king. A king was not sick, he was "cold." He did not have eyes, he had "clearness." The souls of dead kings were called *Zanahary*-so-and-so. Succession was decided from among the king's sons, but not necessarily the oldest. Notwithstanding his great powers and prestige, he might work like a commoner in the rice fields. Though his powers were absolute and he could not be dethroned, he could be counseled to mend his ways.

Though the king owned all the land, he allotted it for use on a basis which was a charter of ownership, revokable at his will. The king dispensed this land in quantities proportional to the importance of, and the potential return from, the individual concerned. He would give the biggest allotments in return for the greatest support. The large landowner, a noble, could now rent any portion of his land to tenant farmers, who would pay rent in the form of a proportion of produce. Land thus owned could be sold or bequeathed as long as it did not become subject to another king. In short, here was a feudal system of a kind.

The staple crop was rice by the wet method; but other crops were cultivated as well—manioc, maize, millet, beans, and sweet potatoes. The chief adjunct to wet rice cultivation was the possibility of transporting water by irrigation, a factor which added to the permanency of the whole organization and took something of the premium away from the swamps and valleys. Irrigation methods made it possible to use the terraced hillsides for agriculture. But control of irrigation, and even perhaps its installation, made a strong central power essential.

The significance of cattle was the same as in Tanala culture; they had little economic but high prestige value. Cows were used chiefly for sacrifice and hence an instrument of power with the gods. The chief source of meat food was chickens, as with the Tanala.

Parallel to the powers of the king were the powers of the father in the individual household; in Betsileo he exercised an unchecked absolutism. All property belonged to the father during the latter's lifetime except his wives' clothes and the gifts he might make to his wives or children. The profits from exploitation of the land went to him. The inheritance laws resembled those of the Tanala except that land could now be inherited.

In the life cycle of the individual we begin to note important changes. The approaching birth of a child is not announced, for fear of sorcery. The afterbirth is buried and various superstitions are connected with it. As in Tanala culture, some days are propitious for birth, others are not. A child born on a certain day (the equivalent of Sunday) must be thrown on the village rubbish heap for a while, or washed in a jug of dirty dishwater. This is supposed to avert evil destiny. The belief is that a child born on one of these unlucky days will destroy its family. Children born in the month of *Alakaosy* are killed either by drowning, or by having cattle walk over them. Should they survive these exposures, they are kept, with the due precaution of changing their destiny through an *ombiasy*. Adoption is frequent; so also is the changing of names.

The basic disciplines are like those of the Tanala. But here in Betsileo society strong emphasis falls on the training in various shades of deference to elders and rank. Manners elevate the status of one

individual as against another: the father is served separately, etc.

Incest taboos are the same as those of the Tanala, and observance is with the same general laxity. Premarital chastity is expected of women and punishment is sterility—as with the Tanala. The endogamy of marriage is now within caste lines, though elevation in status of a slave can take place. There is considerably more homosexuality than in Tanala.

The levirate is practiced in Tanala culture but not in Betsileo. A man who married his brother's widow would be strongly suspected of having killed his brother with sorcery or poison. Polygamy is the rule, as in Tanala.

The disciplinarian in Betsileo society is the father. He has the sole right to punish his children, a right which is, however, rarely exercised. Children may desert their parents in Betsileo, something which is almost inconceivable in Tanala. In one family eight children deserted their parents, whereupon the father changed his name to mean, "I have wiped away excrement for nothing."

The religion of Betsileo is much like that of Tanala; but significant changes can be noted. The rigid belief in fate is changed somewhat to mean that God arranges everything in advance. Sorcery (*mpamosavy*) is now the cause of illness, but the sorcerer is only an executive of God. We find new concepts in Betsileo culture which are unknown in Tanala. For example, God is angry if anyone oppresses the poor. There is a strong belief now in retaliation for aggression against anyone. A man is rich because his *Zanahary* is good.

The immediate supernatural executives are ghosts and spirits of various kinds. There are for example the *vazimba*, who once lived in the land of the Betsileo and were driven out. Their souls did not go to heaven but remained in the tombs and are, therefore, hostile. *Mpamosavy* bury bait in the tombs of the *vazimba* to kill the person from whom the bait was taken. They also believe in several other varieties of evil spirits in the form of birds or animals. The Betsileo make a clear distinction between life and soul. Life ceases with death, the soul continues. The soul may leave the body by breaking a taboo, through excessive chagrin or fright. The souls of the dead observe the same caste distinctions as obtained in life. The souls of the disowned are evil, and can seduce good souls to do mischief to their own families. A good funeral for a relative insures his good will after death. The soul of a king is transformed into a snake.

Possession by spirits is much more common than in Tanala. In the latter we noted occasional *tromba* (possession by a ghost), and very rarely *mpamosavy*. In Betsileo one is possessed by evil spirits. The incidence is very common and the manifestations much more severe. These spirit illnesses are due to either human or nonhuman spirits. In one type of possession (*aretondolo*) the victim sees these spirits which are invisible to everyone else. They persecute the victim in a large number of ways. They pursue him and he flees across the country; he may be dragged along and made to perform all varieties of stunts. But the remarkable thing is that the victim never shows marks of injury. These seizures come suddenly, and after the first attack, the victim is liable to others. His seizure ends in a spell of unconsciousness, from which he awakes normal. Another form of possession is called *salomanga*, which is possession by a once human spirit.

The chief method of worship is by means of sacrifice and thanks. The Betsileo make sacrifices for favors desired or received; they sacrifice for plenty and for scarcity. There is, however, a novelty in the form of taking a vow which in essence is a promise to make a sacrifice, usually a cow or fowl, pending the outcome of certain events in the individual's favor. The rituals are filled with all kinds of repetitious ceremonials; the same thing must

be done a certain number of times to be effectual.

The *ombiasy* has the same functions as in Tanala. He cures the sick, performs *sikidy*, designates good and bad days for undertakings, and makes charms. The *ombiasies* are as in Tanala, *nkazo* and *ndolo*, the latter being chiefly women.

There are in addition to the legitimate *ombiasies* the malevolent sorcerers, *mpamosavy*. These are very scarce in Tanala, but very numerous—or at least suspected to be so—in Betsileo. The practice is secret, and hereditary. The *mpamosavy* is an agent of *Zanahary* and is possessed by the God. These sorcerers do evil deeds at night, and run out of their homes naked except for a turban. Everyone is suspected of being *mpamosavy*. They work chiefly by planting charms in places where they can do harm. The techniques by which the *mpamosavy* work are similar to those in Tanala. One such charm is a small wooden coffin containing medicines and a small dead animal. When this is destroyed the charm is broken. Nail parings, hair cuttings, left-over food, clothing, earth from a footprint, can be used to injure its owner; urine, feces, and spittle are not so used. In Tanala we noted that these could not be used for malevolent magic as "bait." As a result in Betsileo all nail parings, hair cuttings, etc., are kept in one common heap. The charms used by *mpamosavy*, powerful in themselves, are strengthened and reinforced by evil ghosts. Anyone apprehended in the practice of *mpamosavy* is ostracized or driven into exile.

There is perhaps one additional concept in Betsileo culture not found in Tanala: the breaking of a taboo can be atoned for by an act of purification.

Much more general apprehension exists in Betsileo than Tanala, as shown by the increase in belief in omens, dreams, and superstitions. The difference is quantitative. Some of the superstitions are rather telling. When a person dies at the moment of a good harvest, he has been killed by his wealth. The superstitions all indicate some fear of retaliatory misfortune. The type of reasoning is largely by analogy. Thus, if anyone strikes a snake but does not kill it, the offender will suffer as the snake suffers; if it is sick he will be sick; if it dies, he will die.

There is also considerable increase in crime, stealing in particular, but also murder. For this latter crime there is indemnity and retaliation by vendetta. The Tanala do not engage in boxing; the Betsileo do. Suicide is very uncommon; but I have heard of a case of suicide in which the man vowed to use his soul to persecute the man who drove him to it. Blood brotherhood exists as in Tanala.

One additional custom should be noted, as of contrast to Tanala. There the village tomb contains all the dead. In Betsileo, burial was in individual family tombs, the women being laid on one side, the men on the other. The king's body was mummified, with special rituals insuring the liberation from the body of a small embryo which later turns into a snake. Tombs became one of the favorite ways of displaying wealth and ostentation. Technological development of weaving and pottery in Betsileo was very much more highly developed than in Tanala. However, the Betsileo made contact with several neighboring peoples where these arts were highly developed, whereas the Tanala did not.

In conclusion we can say that Tanala and Betsileo cultures were identical in the main. The differences are traceable to the change in productive methods from dry to wet rice cultivation. This is proven by several circumstances: The traditions in Betsileo indicate an old culture very like Tanala; the institutions of both indicate a common source, and many of them are still identical; the changes in Tanala were gradual, and were well on the way to becoming identical with Betsileo when the French took over;

and finally some of the Tanala tribes took over the wet rice method and abandoned it because of the serious incompatibilities it created in the social structure. The spread of wet rice cultivation cannot be attributed solely to diffusion; wet rice culture was endemic in Tanala and coincident with dry rice. Its spread was favored largely by the exhaustion of the dry method. Hence in examining the changes secondary to this main innovation, we need not depend exclusively on diffusion for an explanation.

PART II

Dr. Linton has very fortunately preserved for us not only a check on the conclusions about the Tanala, but a remarkable text for the study of the dynamics of social change as well. This change was not merely an "economic" change; it went to the roots of the whole social organization, and hence created important changes in the basic adaptation of every individual.

In the attempt to survey what happened as a result of the change it must be remembered that only a few features of the culture changed; many remained intact. The changes were undoubtedly abrupt in some features and slower in others.

We can take as our guide-lines the actual changes recorded:

1. Techniques of labor—creating new problems of insuring water supply.
2. The social unit of locality (village) was changed to comprise cross-sections of many gentes. The individuals in the locale were therefore not bound by family ties, nor mutual cooperation, but by common interests and mutual antagonisms against which no religious sanctions could now operate.
3. Exogamous marriages, formerly rare, were now common.
4. Increasing significance of personal property; loss of significance of family ties.
5. Economic value of slaves.
6. Change from joint family to tribal organization to kingdom.
7. New life goals, and class interests; new types of conflict.

The basic disciplines—early anal training, sexual taboos, the formal character of intrafamilial relationships—could not possibly be changed by the new economy. But the significance and functions of the father must have changed. Under the new system he had a limited amount to dispense, and consequently there was a limit to what the sons could gain through ingratiation techniques. Under the old system, subsistence was guaranteed and prestige was graded, but there were a sufficient number of checks to relieve the smart. Under the new system, subsistence was not guaranteed and prestige could not be checked. Conflicts were not now limited to the brothers against each other; but were with brothers only during formative years, and with neighbors or competitors in adult years. A whole new series of loyalties and hostilities unknown in the old culture, had to be built up, to king, to noble, and to others. Undoubtedly there now came to be a high premium on enterprise, skill, cunning, treachery, aggression, plunder, and subjugation of others. After a period of consolidation there undoubtedly came to exist a highly developed check on these tendencies, at least within the group.

We can verify these conclusions concerning the Betsileo, and we need only stress those points at which the two cultures vary. We find first of all a graded hierarchy of rank so rigid that the differences continue after death. We find that these differences are associated with economic opportunities, as well as with difference in dress, demeanor, and other mores.

The significance of property (already quite pronounced in Tanala culture) is augmented until it becomes the sole means of enhancing the ego. The pursuit of property becomes the most important element in the security system of the in-

dividual. The powers and prestige of the king are an excellent indicator of the heights to which prestige may grow. His powers were far in excess of those of a deified ancestor in Tanala; he has unlimited powers to exploit, to frustrate important needs, to impose disciplines and punishments without redress. An ancestral god could be placated; a king could not.

Security of those beneath the king could not be established in any sure way. Ingratiation was a sure technique in Tanala, but a very uncertain one in Betsileo society. This same doubtful situation prevailed between father and son. The conflict between brothers increased in severity because the father's resources were limited. There was an influx of new needs for the individual. New needs as well as new anxieties were added to the individual's problem of adjustment. New needs were created in that the individual required different qualities to get along in this new society, and new anxieties in that he was susceptible to new dangers, dangers of poverty and degradation.

These are at least two sources from which there is an increase in mutual hostility and a corresponding increase in anxiety. That there were increasing suspicion and hostility between brothers is clearly shown by the fact that the levirate easily practiced among the Tanala is forbidden in Betsileo society on the grounds that a man marrying his brother's widow would be suspected of having killed his predecessor. This change cannot be attributed to any difference in basic disciplines, for they are the same in both societies. There is no reason why the Oedipus complex should be stronger in one community than in the other. We are here confronted by an unaccountable quantitative factor. It is remarkable that the "stronger" Oedipus complex should exist where the struggle for prestige, power, and property is keener. In this connection the increase in homosexuality is also significant.

Whereas the power of the father is increased in absolutism, we get an interesting sidelight on the character of the relation between father and children from the story of the father being deserted by his eight children. The father's remark that "he is one who has wiped away excrement for nothing" is eloquent testimony of his feeling that his expectations went awry. He performed all the most unpleasant tasks of parenthood without the rewards. There is little doubt that the parents' attitude is to exploit the child, without furnishing him adequate rewards. The story also proves the futility of ingratiating techniques where the father has nothing to give.

With regard to the basic disciplines we note an exaggeration of the training in denoting deference to authority and power, and an accentuation of homage and degradation. The constant reminder of gradations in status cannot enhance the security of the individual.

All these features would tend to a great increase in insecurity within Betsileo society, based upon a destruction of the frustration-satisfaction balance we found so effectual in preserving social equilibrium in Tanala. At the basis of the new system lies an anxiety which is basically a subsistence anxiety, a permanent claim on land. Upon this latter have been engrafted prestige values which reflect the anxieties of all concerned—those who have land and those who have not. The training in childhood predisposes to servility or exaggerated aggression. Servility by ingratiation cannot, however, bring rewards; the nature of the real economy no longer permits it. The only effect this can have is to release a great amount of anxiety and hostility. The increase in homosexuality also bears on this point.

This increase in general anxiety we find, and it takes a great many interesting forms. First of all, we notice two new concepts unknown in Tanala culture, *oppression* and *poverty*. These are sure indicators of the complete failure of the

distribution of economic (subsistence and prestige) opportunities.

The underling's fear of the father, king or God is greatly increased. There is a formal change of belief which indicates the operation of new forces. The change is from the belief in fate, a somewhat mechanistic concept, to the idea that God arranges everything. This is quite consistent with experience in real life, where the king or father actually does arrange everything, and what one has is by virtue of his grace. But there is an interesting corollary to this, that the sorcerer is also an executive of God's will. This is a definite indicator of a fear of retaliation, different in character from the vision of an ancestral ghost in Tanala culture. In this latter case the anxiety was focused. In Betsileo culture it is diffused over the whole culture, "*omnia contra omnes.*"

This retaliation fear in place of the fear of offending an ancestral ghost indicates the directness of the hostilities and the disappearance of the expectations from the father-king. The forms in which this retaliation fear is shown are the general injunctions against overt aggression. The type of reasoning is well described in the quotation: if you strike a snake, you will suffer as it suffers; if it dies, you will die.

The psychology of this retaliation anxiety was well illustrated by a patient who lived his early life in poverty, who had violent feelings of envy of his siblings. This child finally adjusted on a system of absolute parity for all concerned; that is, he would allow them no more than he had, and himself no more than they had. This compulsive justice did not work out practically, because he was always meeting people who had more than he had, and often met others who had less. These situations always made him uncomfortable. Totally unaware of his deeply repressed envy (for he always compensated on the side of generosity and concern over other people, and prided himself on having a noble character), he nevertheless showed great anxiety when anything "good" happened to him. This was associated with a great urgency to hurry and consummate the specific situation, lest it "slip out of his fingers," or someone else get it before he did. His attitude toward success was likewise filled with anxiety. Thus, on one occasion when he could little afford it he bought an automobile. He immediately began to have anxieties about being seen in it, for to him this would be an immediate indicator of his prosperity. The first thing that happened was that he began having an inordinate run of accidents, which marred the polish on the car. When his friends remarked about it he would stave them off by calling it "an old rattletrap" or "that cheap thing." In other words, though he had no conscious envy, he feared the hostile wishes and envy which he himself felt, but unconsciously covered up with a magnanimity and good will toward others. Each time he would encounter some such success in someone else, this patient would commit a little private crime in the form of petty stealing or of allowing himself some forbidden pleasure.

It is therefore not to be wondered at that in Betsileo society we also see evidence of a fear of success. A man dies because his harvest is too good. This is in no way to be construed to mean that the Betsileo fear, or are inhibited about, success. This tale is someone's fantasy and undoubtedly a culturally justifiable conclusion, in view of the great amount of mutual envy there existing, and is a testimony to the power attributed to hostile wishes.

The increase in crime is noteworthy as one of the overt forms of hostility. Though suicides are not frequent, the one reported by Linton, to the effect that the man killed himself to devote his soul to persecuting his oppressor, is quite consistent with the prevailing beliefs, and reveals a desperate means of acquiring a freedom to show aggression toward one he could not otherwise reach.

As contrasted with the Tanala, the general increase in anxiety among the Betsileo is clearly shown in the general increase in the superstitions and in the extraordinary development of compulsive rituals with their innumerable repetitions of this or the other act to insure its efficacy. It is in many ways according to the pattern we noted in Tanala; but it is much more intense.

Finally we have two important indices of anxiety and intrasocial decompensation: the great increase in various forms of spirit possession and in the use and fear of malevolent sorcery.

We noted in Tanala culture that nail parings, hair, etc., could not be used as bait for purposes of malevolent magic; in Betsileo, however, all these bodily parts or those appertaining to the individual can be used for the purpose, though interestingly enough, not urine, feces, and spittle. This is very baffling, both as regards the items susceptible to, and those immune from, use in malevolent magic. There is no way of deducing the significance without the aid of the individual. The ramifications cannot be traced according to some universal pattern; the immunity of feces, urine, and spittle cautions us to avoid any such universal deduction. But for our particular purposes this is not necessary. It suffices to indicate a hypochondriacal fear of injury through a systematic arrangement of ideas. It is designated "hypochondriacal" because these severed parts retain their connection with the body, and what happens to them will also happen to the body.

Another general indicator of anxiety is the secrecy which attends the birth of a child. It is manifestly a fear of sorcery. But there is another anxiety very remarkably described in the treatment of the child who is born on an unlucky day. This institution is very like what we found in Tanala. But there is in addition an extraordinary fear and brutality associated with it. The child is thrown on a dump heap, or bathed in swill water, or it is actually killed by having cattle trample over it. The implications appear to be that the cure for aggression is to degrade, to make into dirt, and to oppress the individual to death. This idea can arise only in the mind of the individual whose aggression has been crushed in this way; and this the individual in Betsileo has plenty of opportunity to feel.

The forms of spirit possession give us some further clues. In Tanala culture the *tromba* was designated specifically as possession by a ghost: in Betsileo, possession is by evil spirits. Not only is the incidence more common in Betsileo, but the manifestations are much more severe. The distinctions between the various forms of spirit possession do not give us very much help. One, however, seems to be descriptive of an acute hallucinatory psychosis of persecutory content. The victim hallucinates his persecutor, who makes him perform the most extraordinary feats of self-injury, against which the victim is helpless. The recognition and fear of evil spirits is the point of departure from Tanala.

The form of malignant sorcery, *mpamosavy*, known only rarely in Tanala, is extremely common in Betsileo. The techniques used are quite the same as in Tanala, but the agency of the evil spirit is much more in evidence than in Tanala. There the agency was largely inherent in the properties of certain objects. These objects are retained in Betsileo, but they seem to be merely catalysts for the evil spirits, who work in a more or less impersonal way. Another remarkable feature is the fact that everyone is suspected of being *mpamosavy*.

We can now attempt to locate the sources of these anxieties. To do this we may examine the basic personality structure found in Tanala culture. In comparison, we find a change in one of the primary institutions—the subsistence economy. This creates for the individual in Betsileo an ego problem not known in

Tanala. The fusion of subsistence and prestige values is now permanent. No other variables are introduced, the family organization, basic disciplines, and sibling inequality remaining the same. Any changes in personality structure must therefore be due to new adaptations which must be made to the subsistence-prestige situation.

The ego-attitudes of this situation can be seen in the Tanala culture. Submission and ingratiation are ego-acceptable roles as long as basic needs are not frustrated and protection is guaranteed, and as long as the smart of being the underdog is soothed by the absence of ostentation. An ego organization built up by basic disciplines to expect reward for submission can do only a few things if this need for protection is frustrated; it becomes both anxious and aggressive. The prototype of the anxieties is to be found in the types of aggression observed. These take the form of envy, jealousy, wish to hurt, wish to rob, wish not to see others enjoy what you yourself do not have. The anxieties—fear of being injured or robbed, fear of evil wishes of others, correspond to these hostile wishes.

The new needs for heightened self-esteem are strangulated by the rigid social system, which is now divided into immobile castes. However, the method of raising self-esteem is now exclusively through property, which has all the attributes of prestige because with it one can enhance one's ability to control others and win regard (and also hate).

The only forms of expression of those who decompensate under these conditions are the various forms of spirit possession (by evil spirits, not Gods)—overt aggression in the form of malignant sorcery (*mpamosavy*), over which the family Gods no longer exercise control, for the victims are outside the family line. For minor forms of decompensation there are still the services of the *ombiasy*, and for those who succeed, the hatred, unconscious or expressed, of everyone else.

The person of the king now has the highest prestige status and is distinguished from everyone else by personal taboos, special tokens of deference and submission. He is likely to be the most hated man, because he exercises the greatest control. Around him can now be built all the accoutrements of vested interests. These vested interests create great anxiety to their owners, and, to insure their integrity, the rights of property must be guaranteed with more and more force. This causes more anxiety all around and more hostility.

The disposition of the Tanala is assuredly "compulsive" in character; but it does not compare with that of the Betsileo in intensity. The source of this anxiety is not some racial idiosyncrasy, but the actual introduction of scarcity and anxiety into what is ultimately reducible to subsistence.

8.

THE J-CURVE HYPOTHESIS OF CONFORMING BEHAVIOR *By Floyd H. Allport*

Distribution on a Telic Continuum: The J-Curve Hypothesis

Franklin H. Giddings once made a statement to the effect that, if we could sufficiently reduce the prevailing temperature, we would find practically everyone going about with his coat collar turned up about his ears. This remark of the founder of "pluralistic behavior" con-

Abridged from the article of the same title in *Journal of Social Psychology*, 1934, V, 141–183, with the permission of the author and the publisher.

tains not only a profound truth, but a vital suggestion for research. It points out a field of objective phenomena which can be agreed upon, isolated, and measured. All that is needed is that we ask further questions which are suggested by the statement quoted. First, what is the degree of temperature at which this universally similar behavior will occur, and what determines it at that point? Secondly, will *all* the people respond by turning up their collars? If not, what proportion will so respond? And what about those who do *not?* Will they do other, and perhaps lesser, acts toward the end of keeping warm? If so, what actions, and what proportions will perform these acts respectively?

Not only Giddings, but other social students, have regarded their field as dealing properly with social norms or modes of agreement. Their work has consisted in discovering, defining, and describing such modal points of conformity as the content of a generally accepted attitude, a folkway, a custom, a tradition, a convention, or an institution, or such societal tendencies as "public opinion," mass action, imitation, social forces, pressures, and culture patterns. Social solidarities are also presupposed in various forms of human engineering, from nationalistic movements to working-class propaganda and organized charity. This emphasis upon uniformity, though legitimate for certain purposes, is inadequate for a statement of society in terms of human action. We want to know not only the abstract mode, or position of conformity, but the entire "lay" or distribution of human behavior upon the act in question and the factors contributing to that distribution. Until we know this, we shall never know the relevance of the conventional pattern to individual needs; nor can we predict either the need or the likelihood of change.

A few years ago, Dr. Richard Schanck was applying certain scales for measuring the attitudes of people in a rural community (near Syracuse, New York) toward symbols representing their town, their associations, and their institutions. He expected that he would find the usual bell-shaped, normal probability distribution of these attitudes, and hence could readily use their median as an index of measurement for the community. To his surprise, however, many of his distributions were skewed far to one side, some of them so completely as to be one-sided in slope. The mean or median of a distribution of this sort did not seem to possess so much significance as the fact that the distribution was one-sided and steep at a particular point. There was consequently much difficulty in trying to find a way to describe his data in the conventional, statistical terms. It then occurred to the present writer that this might be the very nature of the distribution of those behaviors which make up social customs and institutions; in other words, that conforming behavior is something to be described not so much in terms of a norm or index, as in terms of an entire distribution. Since that time the writer has been testing and developing this hypothesis in studies at Syracuse University. Further data have been added by a number of students and colleagues. The purpose of this paper is to assemble the data now on hand and to attempt a precise statement of the hypothesis involved.

To understand the basis upon which our data have been collected, it is necessary to think of a series of units, or positions, along what we may call a *telic continuum.* This is a continuum of purpose. It deals with the question of "how much of" (or how fully) a certain purposive, meaningful, prescribed act is carried out in practice. Such a continuum is also concerned with the objective to be gained by the concerted action of many individuals, an objective commonly recognized, and one toward which we may expect a fair degree of conformity in action. For example, we have employed a continuum

dealing with the degree of obedience to traffic signals, such as boulevard stop signs, red lights, etc. The underlying purpose of such signals and regulations, in the minds both of those who made them and those who obey them, is the securing of safety while driving in traffic. The question of to what extent, or how well, one obeys the traffic rule can be determined only by interpreting what one actually does in the traffic situation in terms of how fully that act fulfills this underlying purpose. The positions on our continuum represent recognizable degrees in which this purpose is fulfilled by respective degrees of performance of the prescribed act. Thus *stopping completely* before the crossing at the appearance of the red light would be the maximum degree of fulfillment. All who stop at the red light lie in this first position of maximum satisfaction of the purpose of traffic safety through complete obedience to the rule. The next recognized degree is *slowing down considerably*, but not stopping, before the red light. This act represents a smaller degree of fulfillment of the purpose through a lesser degree of obedience to the regulation. *Slowing down only slightly* is our third scale position. It represents a still smaller degree of obedience and fulfillment. The fourth and last position is *going ahead without change of speed*, an act which represents an entire disregard of the signal and no fulfillment whatsoever of the common purpose of safety in motor traffic. These four degrees of speed of motorists at red-light crossings have been found to be readily distinguished and recorded. Our telic continuum, it will be seen, is one of *the amount of fulfillment of the purpose of the common or prescribed act;* and the points on the continuum are recognizable classifications of the fulfillment, arranged in order.

The data with which we are now concerned are shown in connection with the solid black figures in the accompanying charts. The heights of the black columns indicate the number of cases falling upon the different positions of the telic continuum. Throughout the charts, solid as well as shaded figures indicate the distribution of observations actually made.

Figure 1, from the work of Milton Dickens, shows the distribution of motorists on the continuum just described. The conditions involve the reaction to boulevard stop signs rather than red lights. The reactions were also taken only in cases where there was traffic coming at right angles to the direction of travel of the motorists concerned; so that a double incentive to stop was presented in the possibility of a collision and the presence of the stop sign. The data were gathered in two large cities. The distribution is steepest on the position representing most complete obedience and fulfillment of the purpose of traffic safety, and decreases steadily to the position representing the least fulfillment recognizable, or no fulfillment at all. It is further to be noted that the decrease is less with each succeeding interval. The curve which is here hypothetically suggested, if one follows it upward from its lower extremity on the x axis, is one of *positive acceleration*. It may be compared roughly with a reversed letter J (without the tail of the J being turned up).

Figure 2 (also from Dickens) is compiled from the behavior of 102 motorists at a busy intersection in Syracuse, New York. The stimulating circumstances were both red signal lights and a policeman; but there was no cross traffic. Cars immediately behind other cars, that is, those whose drivers had no choice but to stop, are not included. Here we see the same tendencies, but in more marked degree. Ninety-four percent stopped completely, 3 percent proceeded very slowly, 2 percent slowed slightly, and 1 percent went ahead without change of speed. The reverse-J-distribution, with the maximum number of cases on the position of complete fulfillment and the minimum on that of no fulfillment, is suggested.

POLITICAL (TRAFFIC)

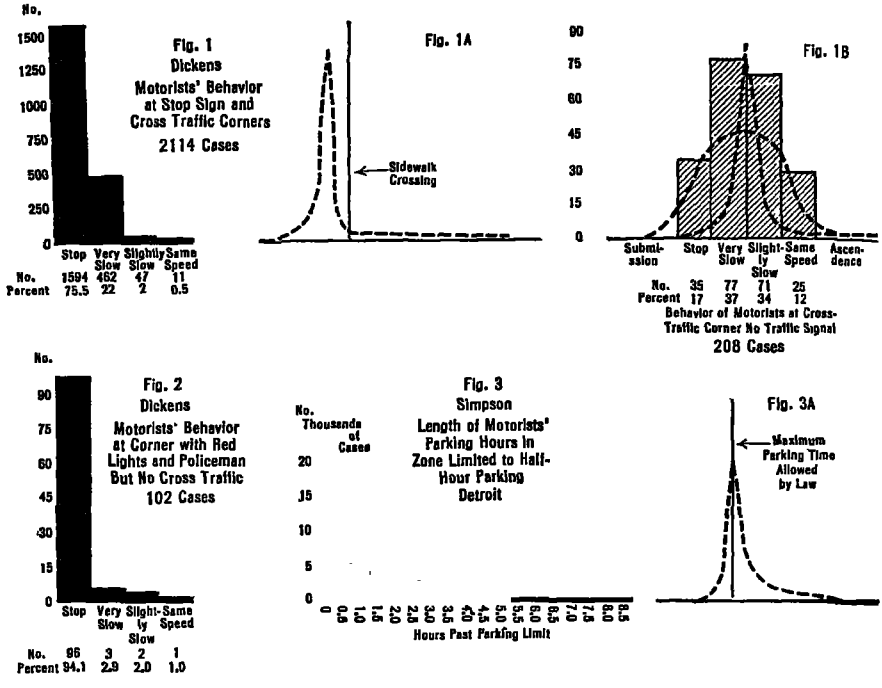
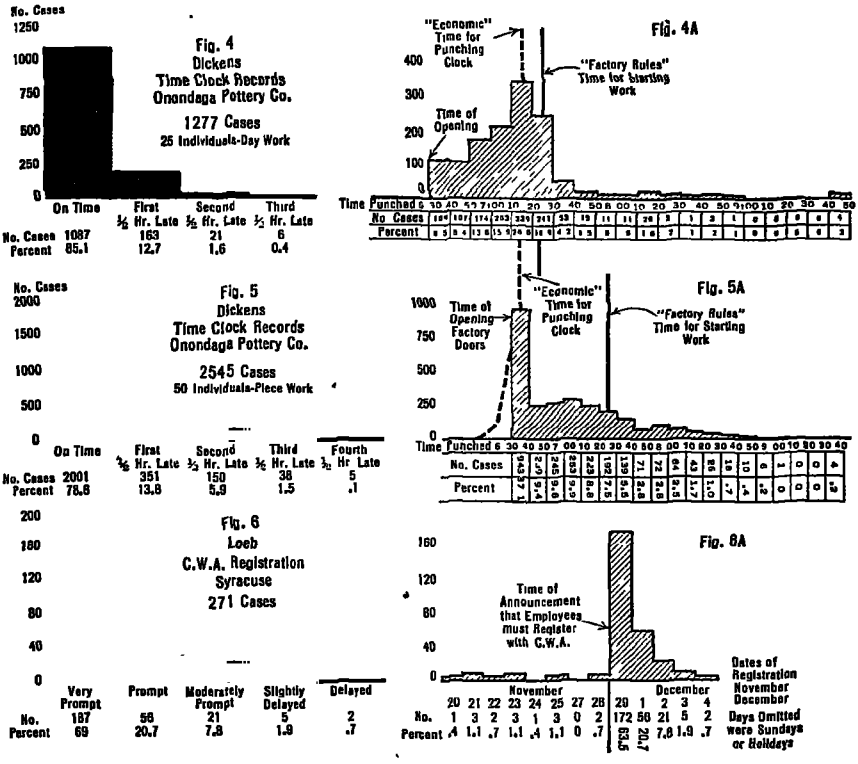


Figure 3 (reproduced by courtesy of Mr. Hawley S. Simpson) indicates the lengths of time cars were left parked in city regions where the parking limit was one-half hour. The ordinates represent the number of cases in thousands, and the base line a scale of successive half-hour intervals. Again our telic continuum represents degree of fulfillment of the purpose to relieve traffic congestion by degree of adherence to a rule. We may regard the behavior of the motorists of the cars represented in the first column of the figure as conforming fully with the purpose of the traffic regulation, that is, as "within the law"; while the motorists of the cars in the succeeding columns are to be regarded as fulfilling it in less and less degree. Here again we find our J-shaped pattern, descending from maximum conformity by generally diminishing increments of difference to the end of the distribution.

Let us turn now from the field of governmental regulation to industry. Mr. Dickens hit upon the ingenious scheme of consulting the time-clock records of a factory for measurable evidence of behavior distribution. Figure 4 represents his summary of the time-clock cards of 25 male employees of the Onondaga Pottery Company, Syracuse, New York, over a period of about 13 weeks. The subjects were day-workers. The data recorded are the times at which the clock was punched in the morning. The time at which work began was 7 : 25 A.M., and those who were late were penalized by a deduction of pay according to their lateness. We have constructed a telic continuum extending from "on time" (or complete conformity with the employer's purpose of efficient factory management) toward the right by successive degrees of half-hours of lateness. Mr. Dickens found that 85 percent of the reactions were "on time," 12.7 percent were within the first half-hour of lateness, 1.6 percent were within the second half-hour of lateness, and the re-

ECONOMIC



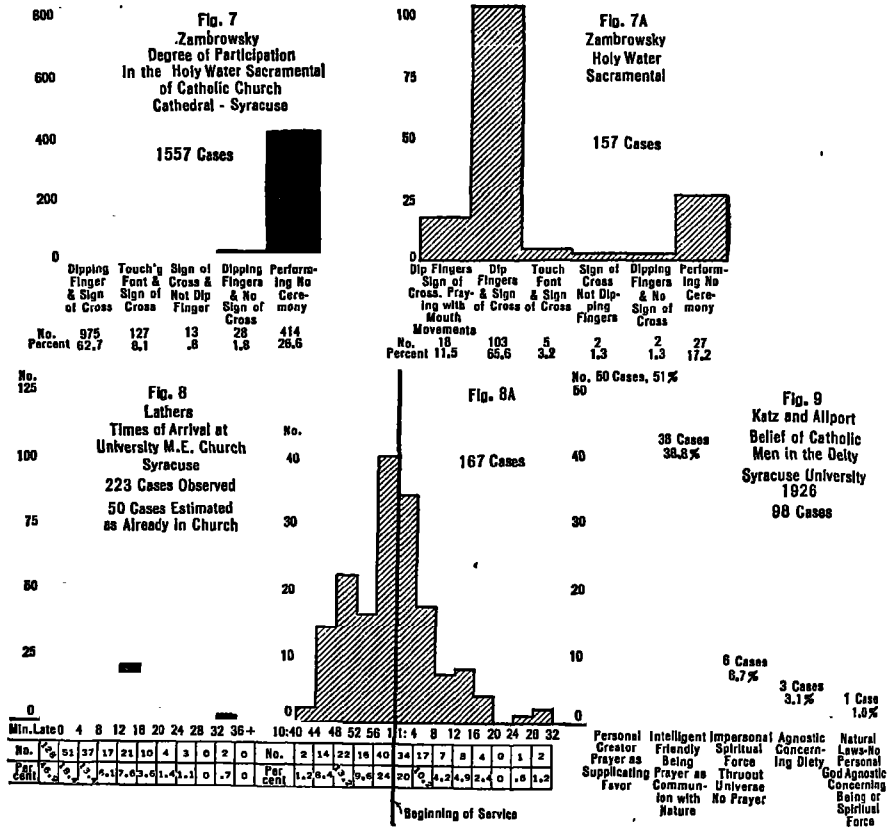
mainder, .4 percent, were within the third half-hour. It will be seen that this array conforms to the J-shaped pattern of distribution.

Figure 5 is a graph of similar data gathered by Mr. Dickens, comprising 2,545 reactions of 50 male piece-workers at the same factory during the same period. The percentages on various steps range by successively diminishing amounts from 78.6 percent "on time" to .1 percent "punching-in" during the fourth half-hour of lateness. The piece-workers, therefore, follow the same tendencies in their distribution as the day-workers.

Figure 6, contributed by Miss Dorothy Loeb, shows the reactions of 271 employees of a city welfare department when told it would be necessary for them to register with the Civil Works Administration for continuation of their employment. A few cases are included in the left-hand column who had already registered before this announcement was made. Our telic continuum scale here may be considered as ranging from very prompt compliance, that is, registration on the same day, to registration four working days later. The degrees of compliance corresponding to these one-day scale intervals may be described as very prompt, prompt, moderately prompt, slightly delayed, and delayed. The number of cases falling on these steps are 187, 56, 21, 5 and 2, respectively. Again we see a positively accelerated J-curve, ranging from maximum conformity or fulfillment of purpose to the least fulfillment.

Figure 7 takes us from the economic field to that of religious behavior.

RELIGIOUS



Miss Basia Zambrowsky has studied the behavior of Catholics at the Cathedral in Syracuse, New York, in stopping before entering to dip their fingers in holy water and make the sign of the cross. The data are compiled from a number of masses on different Sundays. The continuum positions and distributions are as follows: Complete compliance in carrying out the purpose of the sacramental, that is, dipping the fingers and making the sign of the cross, is the first position at the left. Of a total of 1,557 cases, 975, or 62.7 percent, gave this reaction. The second position, expressing the purpose of the ritual in slightly less degree, is touching the font (but not dipping the fingers) and making the sign of the cross. One hundred twenty-seven subjects, or 8.1 percent, made this response. The third recognizable degree of fulfillment is making the sign of the cross without either dipping the finger or touching the font. Those who fell on this position numbered 13, or .8 percent. The fourth position is dipping the finger but not making the sign of the cross. Twenty-eight, or 1.8 percent, reacted in this manner. The final category, which does not properly belong in the continuum of conformity at all, consists of walking in without performing any ceremony whatsoever. This includes 26.6 percent of the subjects. A glance at this figure reveals the same general tendencies as previously noted, with certain exceptions. The distribution upon

position 3 is lower than it should be to accord with our theory of the positively accelerating J-curve, and the final category, nonparticipation, comes up considerably higher. The increase upon the last position may show a tendency toward division among Catholics in regard to this ritual, or it may suggest the presence of some non-Catholic visitors. If we formulate our J-curve hypothesis, however, only upon the basis of those who, in some measure, *conform*, and exclude the others, the distribution upon this last step may be legitimately ignored.

Figure 8 is similar to the time-clock records of arrival at a factory. The data, compiled by Miss Eleanor Lathers, represent observations of the time when 223 individuals arrived at a certain church on a Sunday morning. The figure shows, in the left-hand column, those who were "on time"; and on successive steps to the right are indicated the proportions of those who were late (that is, who arrived after the service had begun) by successive intervals of four minutes. The tendency of distribution again clearly resembles the J-form.

Figure 9, reproduced from *Student Attitudes*, by Katz and Allport, indicates the distribution of the beliefs regarding the nature of the deity among male Catholic students at Syracuse University in the year 1926. The position at the extreme left represents an Old Testament conception of the deity as personal creator and ruler, while that at the extreme right states that natural laws prevail, that there is no personal deity, and that we should be agnostic regarding spiritualistic notions of the universe. The proportions of the cases, ranging from complete compliance or conformity at the left to the least conformity at the right, again exhibit, with the exception of one column, the usual J-shaped distribution. This interpretation, of course, rests upon the assumption that the view of God as a personal creator and ruler fulfills more adequately than any other view presented the purpose of the Catholic doctrine approved for members of that faith.

From the data so far obtained, it therefore appears that when we plot the distribution of behaviors in a situation where individuals are said generally to conform we find the following condition: Rarely, if ever, do we find that all the individuals conform completely. A varying number conform only in partial degree. The proportions of these are distributed in a diminishing fashion as we proceed out toward the deviating extreme. In all our observations, no cases have been found in which the use of the telic continuum to record degrees of performance of the common act failed to give us at least a fair approximation of the J-form of distribution.

In certain fields of behavior, a number of individuals may be found who do not conform in any degree. These will vary in number according as our sample includes more or fewer who have been under the influence of the common stimulating pressure. In traffic ordinances, for example, practically every motorist in the city is potentially affected, and there is material punishment for nonconformity. In the taking of holy water on entering church, only certain classes of people are affected, and there is no punishment for nonconformers. The occurrence or proportions in our samples of these groups who "do not belong" are, so far as our present techniques of prediction are concerned, quite fortuitous; and we therefore limit our hypothesis to the distribution of those who in some recognizable degree *do* conform.

Two objections will probably be raised at this point. First, some of the continuum positions we have been using are purely *a priori*, logical values, rather than empirically or experimentally determined steps. There is no way of knowing that the intervals between the positions of such a continuum are of equal psychological value. We do not know, for example, whether touching the font and

crossing one's self is equidistant between dipping the finger and crossing and simply dipping the finger, or whether it should be nearer to the complete ceremony than to the dipping.

There is clear proof, however, that in a number of instances our J-forms of distribution could not have been the result of using continua of unequal position intervals. It should be pointed out that five of our continua were true scales, that is, they contained positions between which the intervals were equal in the physical and exact sense (Figures 3, 4, 5, 6, and 8). And it is in these cases that we find the J-curve distribution not only present, but present *in the clearest and sharpest form.* In view of this fact the force of the objection that some of our continua do not represent true scales becomes considerably reduced.

A second objection is that we have not extended our records far enough on the left. In stopping before the red light, some motorists may put on the brakes more quickly than others and come to a stop *behind* the point which the law actually requires. This fact, if represented upon an extended scale of time units, would again give a two-sided, skewed distribution. Again, employees may not only come to a factory on time, but ahead of time; and so on. This objection, though fully conceded, is not in any sense a detraction from the principle as we have stated it. It should be noted that, so far, while we have in some instances used physically measurable and equal empirical units, we have spoken only in terms of a *telic* continuum, that is, in terms of the degree of fulfillment of the purpose of a common rule. From this standpoint it is legitimate to group together all the cases where the behavior is "more than" that required by the rule, as simply "within the law," or as satisfying completely the requirement. Though some may conform more quickly or vigorously than others, the content of one's act cannot be more conforming than conformity itself, that is, than the modal act. We have a right, therefore, to construe the data as falling upon such purely telic continua and to formulate the principle of the J-distributions which result, so long as we make it clear that our formulation applies only to distributions as plotted upon a continuum of this sort and indicates only degrees of compliances with a prescribed standard.

We have spoken in our preceding discussion of three necessary factors. *First,* there must be a clearly recognizable, unequivocal purpose to be achieved by the behavior in question. *Second,* there must be some kind of law, rule, regulation or code, in the language of which one may find stated the "proper" or required mode of behavior by which this purpose is to be achieved. This prescribed act is that which we have placed as the extreme left-hand position of our telic continuum. *Third,* a fairly large proportion of the population studied must do this prescribed act.

A little thought will convince one that these three requirements are not arbitrarily chosen, but are all necessary and are closely interwoven. In the first place, a *purpose* is necessary because acts which people perform in common, such as customs and institutions, are never sporadic, random activities like the reflexes of a newborn infant. They are meaningful adjustments to definite situations. There must always be some end to be achieved before a public rule can be made or even implied. The end may not always be for the interests of the greater number; but it is at least a recognizable purpose of some person or persons. Secondly, it is necessary that there be a *rule* defining the expected behavior before the purpose can have any widespread or practical significance. Before we can have conformity of action, we must have a standard to which people can conform. The term "rule," however, should be given a wide construction. It may be taken to indicate a mode of behavior prescribed,

established, or defined in any one of a large number of ways, providing the prescription is definite. The only requirement is that somewhere, at some time, the rule is *definitely stated* or is *capable of being stated* in such a way that the majority of people will recognize the statement as authoritative or as universally accepted. Examples may be found in codified law and statutes, in canon law, in books of church doctrine and ritual, in governmental or industrial regulations, in school and college catalogues, in manuals of etiquette, and in any of the accepted phrases by which customary behavior is described. Usually, the rules are most precisely referred to and formulated by heads of "institutions" or reputed authorities on institutional procedure. Thirdly, there must be *a fairly large proportion of behavior in compliance with the rule*, because, in situations where only a meager minority conform, it will be likely that the influences tending to produce conformity, such as education, punishment, and social approval, will be so weak as to be outweighed, in different instances and in varying amounts, by other considerations. In this event no very constant proportions can be expected to fall upon the various degrees of the continuum. If a traffic ordinance, for example, exists merely on the statute books and is very loosely enforced, all talk both of the law and degrees of conformity to it are purely academic matters without counterpart in actual behavior. Almost any proportions of the varying degrees of compliance with this ordinance may be expected according to the time and local circumstances. A rule *is* a rule in an effective, behavioral sense only when a fairly large proportion of people obey it.

A Four-factor Theory of Conformity Distributions

Throughout the preceding discussion we have hinted at the factors which seem to be at work in producing the J-distribution. Our remaining task is to render their interpretation more explicit. The analysis of conformity distributions into all their contributing elements may prove to be a long and involved task. Without placing any dogmatic limitation on the number of possible factors, we may say that there are probably at least four major types of influences at work. We may call these, respectively, the conformity-producing agencies, the common biological tendencies, the personality-trait distribution tendency, and simple chance. The first two, conformity-producing and biological influence, seem to determine the horizontal position of the mode on the x axis and tend to make the curve steep and narrow; the latter two, personality-trait distribution and chance, tend, in opposition, to lower the mode and make the curve more bell-shaped or spread out. We shall discuss these in order.

A. Conformity-producing Agencies. By this term we mean any influences such as conditioning, punishment, education, propaganda, social approval or disapproval, the use of legal, ecclesiastical, or other symbols, the invoking of traditions or customs, the appeal to "institutions," and the power of institutional controls and leaders, all of which are agencies tending to make people conform to a common mode. The laws of social psychology might be included here, such as the attitude of conformity, social facilitation, impression of universality, and the like, which, though secondary rather than primary in their operation, act in the direction of making the mode higher. A perfect conformity distribution, if such could be found, would be in the shape of a straight, vertical line at the point of the approved practice. The degree to which the distribution does pile up at this point and the extent to which the point is pushed toward one side or the other are in part functions of the strength of the conformity-producing influences.

B. Common Biological Tendencies. By treating the biological tendencies separately from the conformity agencies we do not imply that the latter are apart from the realm of biological realities. Unquestionably, behind our common sanctions, institutional symbols, and training, there lie biological needs which are fulfilled through these agencies. We refer here, however, not to the biological activities fulfilled indirectly through these "societal" agencies, but to those operating in a more direct and primitive manner, that is, those ways in which every human organism reacts to its raw, physical environment, and would react even if no other human beings were present. Professor Giddings' example of a temperature so low as to produce an almost complete similarity of individuals' protective behaviors is a case in point. Under ordinary conditions, the amount of clothing worn, food consumed, water drunk, exercise enjoyed, sleep taken, or the speed of walking, talking, etc., would probably tend, in an unselected population, toward the normal probability curve of individual differences. But as conditions change, as a sharp common need or crisis arises (such, for example, as a famine or a forest fire), the strength of the biological factor increases relatively to that of the other factors, and we find a displacement of the mode in the direction of that act or that degree of action which will secure the minimum adjustment necessary for life.

The part played by common biological tendencies in our conformity distributions does not usually involve such crises as these. In fact, one of the principal reasons for having public regulation is to prevent serious maladjustments and assure a steady satisfaction of wants in advance of their arising. The common biological influences which do operate in these regulated activities may perhaps be summed up under the concepts of inertia, economy of effort, or resistance to the thwarting which is inevitable, in some degree, under any scheme of public control. An example would be the natural aversion to getting out of bed early in the morning in order to be at work at a required time, or the effort required to kneel in prayer or to stop and perform a ceremony before entering church. The ideal in practice is to have the modes which would be produced by the biological and the conforming influences (if they acted separately) coincide. An attempt at such agreement is illustrated by the successive timing of boulevard signal lights so that a motorist, if once he gets "in step" with the lights, can drive for a considerable distance without slowing down or shifting gears.

In the curve of the time of arrival of employees at a factory, Figures 4A and 5A, we may picture the common biological tendency as operating *against* the conformity-producing agency. Inertia must be overcome in order to get out of bed and get to the factory. If this inertia were the sole factor operative in determining time of arrival, it would probably push the modal time continually further to the right, until it reached an hour when most workers found it practically no effort to be present. The pressure brought to bear by the factory managers, however, to have the work begin early, and the system of pay by the piece which bestows a reward upon being punctual, tend to hold the time of modal arrival constant, or even to push it toward the left in order to offset the effects of the tendency in the opposite direction. Consequently, the mode actually established is probably a compromise between these two influences. More exactly stated, it is the point at which an equilibrium between the biological and the conformity-producing tendencies is established. Similarly, the modal stopping behavior of motorists facing the red signal light is assured only by maintaining the conformity-producing agency (punishment) at greater strength than the physiological inertia which must be overcome in apply-

ing brakes and shifting gears. As soon as law enforcement lapses we find motorists going ahead without slowing down. The J-curve is then broken down, to be replaced by a distribution showing a mode of fairly uniform city driving spread out somewhat by normal personality differences.

It will be noted that where biological tendencies are standardized in their operation through conformity-producing agencies the combined action of these influences may considerably increase conformity. This happens with regard to the rhythms of sleeping, eating, recreation, going to work, etc. The natural tendency to perform these acts at intervals fairly uniform for all is greatly reinforced by customary influences which demand the concerted, standardized action necessary for a social organization based upon division of labor. When many human needs are satisfied, however, as they are today, not through individual effort, but by centralized mass production depending upon conformity of action, other problems emerge. Increasing conformity in time of eating, and at the same time making the fuel for cooking depend not upon individual effort but upon a concerted economic system (further conformity) of which a power plant or gas main is one component, sharply increases the demand upon this production source at a particular time. This is the problem of the "peak load" familiar in many branches of public utilities.

C. Tendencies of Personality-trait Distribution. The third of our list of factors affecting the conformity pattern is one which tends to lessen the steepness of the slope and to spread out the distribution. Just as common biological tendencies operate with conformity to make individuals react alike, so the natural variations of physique, temperament, and endowment which characterize individuals tend to make them react differently. And this latter tendency, though it may be restricted in its operation, cannot fail to exert some influence upon the distribution. It is well known that if an attribute of living organisms which is capable of being measured is chosen and measured in an unselected group, the resulting distribution is likely to take the form of a symmetrical, bell-shaped curve of compound probability, in which the median, the mode and the mean coincide. We are not, of course, arguing that the normal probability curve is universal in nature. It may depend largely upon human purposes and human scales of measurement. Our only assumption here is that when our equal-unit scales are applied to biometric and psychological functions we can predict that such a distribution will be likely to result unless there is some selective factor in the sampling.

Now when some conformity or biologic crisis establishes the mode of behavior at a certain point of the continuum, what happens to the varying potentialities of individuals which, when not overruled by stronger influences, express themselves as a normal probability curve? What probably occurs is that the median of this normal personality curve moves over and coincides with the mode set by the conformity-producing and biological tendencies; and the individual differences, tapering off toward its extremities, exhibit themselves, insofar as the biologic or conformity pressures will permit, as respective degrees of deviation from this mode. The ordinary or typical individuals will comply with the rule; the individuals possessing unusual degrees of the trait brought into play will tend to do "more than" or "less than" the rule requires according to their degree of personality deviation. The greater number, who possess little or no difference in their traits from the average, will probably not noticeably deviate from the modal behavior. They will, for example, arrive at the factory at just about the time they are expected. Those, on the other hand, who tend to be "before-hand" on all oc-

casions, or who tend always to be more cautious than the average, will be likely to come early; and their degree of earliness will be in the proportion in which they possess this trait of promptness or caution. Finally, those who are characteristically inclined to "take their own time" on all occasions, or to be reckless, will probably manifest that dilatoriness or recklessness by being tardy; and their frequency or degree of tardiness may be an evidence of the degree in which they possess these traits.

Apart from this theoretical analysis, we have actual evidence that, of those individuals whose reactions fall along the tail of the J in our distribution of lateness, some, at least, do not fall there altogether by chance. On the contrary they are those who have a fairly constant individual tendency toward tardiness, at least in regard to arrival at their daily work. In the distribution of degrees of tardiness shown in Figures 4A and 5A, the investigator has analyzed the individual time-card records and has computed the median of each individual's reactions. It was found, in the data of Figure 5A, that, of those time-clock reactions which were more than 5 minutes late according to the factory rule, over 80 percent were contributed by individuals whose *median* time was also tardy (data not shown on the charts).

The extent to which the normal personality distribution is departed from in conformity distributions has an obvious practical significance. Its measurement gives a quantitative approach to the maladjustment between human nature, with its biological and psychological differences of individuals, and our somewhat standardized and mechanized civilization. In a completely mechanized industry, for example, where machines are run at a constant speed, there would be almost a complete elimination of the expression of individual differences. That is, there would be a maximum kurtosis of the curve of conforming behavior. Those who naturally reacted more rapidly than the machines would be able to run the machines; but they would have their capacities for more rapid action denied expression. Those who reacted characteristically more slowly than the machines would not only be prevented from carrying out these slower reactions in the industry, but would be disqualified from the industry altogether. The conformity-producing factor is not the only one which may suppress the exhibition and use of individual differences. The same effect may arise from the influence of common biological tendencies; but this is the case, as a rule, only in crises when the physical environment so changes as to require an unusual similarity of behavior in order to exist. In the case of conformity-producing influences, however, we have such an increase in kurtosis not as a result of crises or catastrophes, but as a part of the ordinary routine of living.

D. Chance. We come finally to the consideration of simple probability. Logically, perhaps, this element should come first, since it is a background, without tendency of any kind, upon which the positive influences already mentioned play their roles. Similarly to the "compounding" of probabilities in the personality distribution, simple chance represents a distributing rather than a concentrating tendency. It does not, however, produce the same form of distribution. For in the probability operating in personality distributions the occurrences are concentrated in a modal fashion upon a certain category and are spread out in diminishing proportions to the right and left, while in simple chance they are distributed equally in all categories. The situation is illustrated by tossing pennies. There are two categories, heads and tails. If enough trials are made, there will be found to be an equal number of cases falling in each. Similarly, insofar as simple chance factors are present in the distributions of indi-

viduals along our empirical continuum, there will tend to result an equal number of cases upon each step. If such factors were the only ones present, the curve would be perfectly flat. Although we may neglect this chance distribution for practical purposes (since it occurs everywhere equally), its presence should nevertheless be noted. It may be represented, for example, in the occasional behavior of motorists before traffic signals. Some doctor hurrying upon an emergency case might have to disregard traffic signals in varying degrees wherever possible, according to chance factors in the flow of traffic which permitted him to do so. Or again, a motorist's brakes might slip in an unpredictable degree, or there might be ice in varying degrees of slipperiness upon the pavement. Occurrences of this type might happen to people of any degree of ascendance or submission, or under various degrees of conformity-producing or biological pressure. They will tend to lower the proportion on the position of full compliance with the rule, and may in some cases tend to flatten the distribution. Evidence of the simple chance factor is probably shown in the left-hand portion of Figure 6A. Here we see the distribution of city employees who registered with the C.W.A. before any announcement was made that they must do so, hence before there was any incentive toward compliance with a rule or any standard through which individual differences in promptness could be expressed. We find that this left-hand portion of the distribution is flat. About as many persons had effective reasons for registering upon one day as upon another.

Regularities are found as truly in the field of human behavior as in the fields of physics or geology, so far as the components of action and their statistical summation are concerned. Our present hypothesis is directed toward a quantitative formulation of these components and an understanding of their operation according to a definite law.

II

Memory, Judgment, Perception, Motivation as Influenced by Social Conditions

1.

SOCIAL FACTORS IN RECALL *By Frederic Charles Bartlett*

Experiments on Remembering: The Method of Repeated Reproduction

I have selected for special consideration a story which was adapted from a translation by Dr. Franz Boas[1] of a North American folk-tale. Several reasons prompted the use of this story.

First, the story as presented belonged to a level of culture and a social environment exceedingly different from those of my subjects. Hence it seemed likely to afford good material for persistent transformation. I had also in mind the general problem of what actually happens when a popular story travels about from one social group to another, and thought that possibly the use of this story might throw some light upon the general conditions of transformation under such circumstances. It may fairly be said that this hope was at least to some extent realized.

Secondly, the incidents described in some of the cases had no very manifest interconnection, and I wished particularly to see how educated and rather sophisticated subjects would deal with this lack of obvious rational order.

Thirdly, the dramatic character of some of the events recorded seemed likely to arouse fairly vivid visual imagery in suitable subjects, and I thought perhaps further light might be thrown on some of the suggestions regarding the conditions and functions of imaging arising from the use of *The Method of Description.**

Fourthly, the conclusion of the story might easily be regarded as introducing a supernatural element, and I desired to see how this would be dealt with.

The original story was as follows:

The War of the Ghosts

One night two young men from Egulac went down to the river to hunt seals, and while they were there it became foggy and calm. Then they heard war-cries, and they thought: "Maybe this is a war-party." They escaped to the shore, and hid behind a log. Now canoes came up, and they heard the noise of paddles, and saw one canoe coming

From F. C. Bartlett, *Remembering* (Cambridge, England: Cambridge University Press, 1932). Reprinted by permission of the author and the publisher.

[1] F. Boas, "Kathlamet Texts," *Bulletin 26, Bureau of American Ethnology* (Washington, 1901), pp. 182–184.

* A method used earlier in the book, and not excerpted here.

up to them. There were five men in the canoe, and they said:

"What do you think? We wish to take you along. We are going up the river to make war on the people."

One of the young men said: "I have no arrows."

"Arrows are in the canoe," they said.

"I will not go along. I might be killed. My relatives do not know where I have gone. But you," he said, turning to the other, "may go with them."

So one of the young men went, but the other returned home.

And the warriors went on up the river to a town on the other side of Kalama. The people came down to the water, and they began to fight, and many were killed. But presently the young man heard one of the warriors say: "Quick, let us go home: that Indian has been hit." Now he thought: "Oh, they are ghosts." He did not feel sick, but they said he had been shot.

So the canoes went back to Egulac, and the young man went ashore to his house, and made a fire. And he told everybody and said: "Behold I accompanied the ghosts, and we went to fight. Many of our fellows were killed, and many of those who attacked us were killed. They said I was hit, and I did not feel sick."

He told it all, and then he became quiet. When the sun rose he fell down. Something black came out of his mouth. His face became contorted. The people jumped up and cried.

He was dead.

Each subject read the story through to himself twice, at his normal reading rate. Except in the case which will be indicated later, the first reproduction was made 15 minutes after this reading. Other reproductions were effected at intervals as opportunity offered. No attempt was made to secure uniformity in the length of interval for all subjects; obviously equalizing intervals of any length in no way equalizes the effective conditions of reproduction in the case of different subjects. No subject knew the aim of the experiment. All who were interested in this were allowed to think that the test was merely one for accuracy of recall.

I shall analyze the results obtained in three ways:

First, a number of reproductions will be given in full, together with some comments;

Secondly, special details of interest in this particular story will be considered;

Thirdly, certain general or common tendencies in the successive remembering of the story will be stated and discussed more fully.

Some Complete Reproductions Together with Comments

After an interval of 20 hours subject H produced the following first reproduction:

The War of the Ghosts

Two men from Edulac went fishing. While thus occupied by the river they heard a noise in the distance.

"It sounds like a cry," said one, and presently there appeared some men in canoes who invited them to join the party on their adventure. One of the young men refused to go, on the ground of family ties, but the other offered to go.

"But there are no arrows," he said.

"The arrows are in the boat," was the reply.

He thereupon took his place, while his friend returned home. The party paddled up the river to Kaloma, and began to land on the banks of the river. The enemy came rushing upon them, and some sharp fighting ensued. Presently someone was injured, and the cry was raised that the enemy were ghosts.

The party returned down the stream, and the young man arrived home feeling none the worse for his experience. The next morning at dawn he endeavoured to recount his adventures. While he was talking something black issued from his mouth. Suddenly he uttered a cry and fell down. His friends gathered round him.

But he was dead.

In general form (1) the story is considerably shortened, mainly by omis-

sions; (2) the phraseology becomes more modern, more "journalistic," e.g., "refused, on the ground of family ties"; "sharp fighting ensued"; "feeling none the worse for his adventures"; "something black issued from his mouth"; (3) the story has already become somewhat more coherent and consequential than in its original form.

In matter there are numerous omissions and some transformations. The more familiar "boat" once replaces "canoe"; hunting seals becomes merely "fishing"; Egulac becomes Edulac, while Kalama changes to Kaloma. The main point about the ghosts is entirely misunderstood. The two excuses made by the man who did not wish to join the war-party change places; that "he refused on the ground of family ties" becomes the only excuse explicitly offered.

Eight days later this subject remembered the story as follows:

THE WAR OF THE GHOSTS

Two young men from Edulac went fishing. While thus engaged they heard a noise in the distance. "That sounds like a war-cry," said one, "there is going to be some fighting." Presently there appeared some warriors who invited them to join an expedition up the river.

One of the young men excused himself on the ground of family ties. "I cannot come," he said, "as I might get killed." So he returned home. The other man, however, joined the party, and they proceeded in canoes up the river. While landing on the banks the enemy appeared and were running down to meet them. Soon someone was wounded, and the party discovered that they were fighting against ghosts. The young man and his companion returned to the boats, and went back to their homes.

The next morning at dawn he was describing his adventures to his friends, who had gathered round him. Suddenly something black issued from his mouth, and he fell down uttering a cry. His friends closed around him, but found that he was dead.

All the tendencies to change manifested in the first reproduction now seem to be more marked. The story has become still more concise, still more coherent. The proper name Kaloma has disappeared, and the lack of arrows, put into the second place a week earlier, has now dropped out completely. On the other hand a part of the other excuse: "I might get killed," now comes back into the story, though it found no place in the first version. It is perhaps odd that the friend, after having returned home, seems suddenly to come back into the story again when the young man is wounded. But this kind of confusion of connected incidents is a common characteristic of remembering.

EXPERIMENTS ON REMEMBERING: THE METHOD OF SERIAL REPRODUCTION

Methods for studying remembering often deal with factors influencing individual observers. They help to show what occurs when a person makes use of some new material which he meets, assimilating it and later reproducing it in his own characteristic manner. Already it is clear, however, that several of the factors influencing the individual observer are social in origin and character. For example, many of the transformations which took place as a result of the repeated reproduction of prose passages were directly due to the influence of social conventions and beliefs current in the group to which the individual subject belonged. In the actual remembering of daily life the importance of these social factors is greatly intensified. The form which a rumor, or a story, or a decorative design, finally assumes within a given social group is the work of many different successive social reactions. Elements of culture, or cultural complexes, pass from person to person within a group, or from group to group, and, eventually reaching a thoroughly conventionalized form, may take an established place in the general mass of culture possessed by a specific group. Whether we deal with an institution, a mode of conduct, a story, or an art-

form, the conventionalized product varies from group to group, so that it may come to be the very characteristic we use when we wish most sharply to differentiate one social group from another. In this way, cultural characters which have a common origin may come to have apparently the most diverse forms.

The experiments now to be described were designed to study the effects of the combination of changes brought about by many different individuals. The results produced are not entirely beyond the range of experimental research, as I shall show, and the main method which I have used is best called *The Method of Serial Reproduction*.

In its material form this method is simply a reduplication of *The Method of Repeated Reproduction*. The only difference is that A's reproduction is now itself reproduced by B, whose version is subsequently dealt with by C, and so on. In this way chains of reproduction were obtained: (1) of folk-stories, (2) of descriptive and argumentative prose passages and (3) of picture material. The folk-stories were used, as before, because they are predominantly a type of material which passes very rapidly from one social group to another; because most subjects regard them as interesting in themselves; because stories can easily be chosen which were fashioned in a social environment very different from that of any social group that is likely to yield subjects for a given experiment; and because, both as to form and as to content, they undergo much change in the course of transmission. The descriptive and argumentative passages were used because they represent a type of material with which all the subjects of these experiments were already familiar, so that they would provide some kind of check, or control, upon the results with the folk-tales. The picture material was used, because the transmission of picture forms has constantly occurred in the development of decorative and realistic art, and in order to see whether the same principles of change would operate in spite of the difference of medium dealt with.

In the case of the verbal passages, each subject read the material twice through, to himself, at his normal reading pace. Reproduction was effected after a filled interval of 15–30 minutes. In the case of the picture forms, a subject was allowed adequate time for observation, and he effected his reproduction after a similar interval.

So far as the two chains of reproduction already considered go, it appears that, under the conditions of the experiment, the following are the main types of transformation likely to occur:

1. There will be much general simplification, due to the omission of material that appears irrelevant, to the construction gradually of a more coherent whole, and to the changing of the unfamiliar into some more familiar counterpart.

2. There will be persistent rationalization, both of a whole story and of its details, until a form is reached which can be readily dealt with by all the subjects belonging to the special social group concerned. This may result in considerable elaboration.

3. There will be a tendency for certain incidents to become dominant, so that all the others are grouped about them.

It also seems probable that a cumulative form of story favors the retention of the general series of incidents with little change, and that whatever causes amusement is likely to be remembered and preserved. It may be to this last factor that the preservation of the novel in a commonplace setting is largely due.

Social Psychology and the Matter of Recall

First, then, I propose to consider a few typical cases in which memory appears to be directly influenced by social facts. I shall discuss the psychological explanation of these instances, and, following this, I shall draw certain tentative con-

clusions bearing upon the psychological significance of social organization, so far as remembering is concerned.

Some years ago the Paramount Chief of the Swazi people, accompanied by several of his leading men, visited England for the purpose of attempting to obtain a final settlement of a long-standing land dispute. When the party returned, there was naturally some curiosity among the British settlers in Swaziland concerning what were the main points of recall by the native group of their visit to England. The one thing that remained most firmly and vividly fixed in the recollection of the Swazi chiefs was their picture of the English policeman, regulating the road traffic with uplifted hand.

Why should this simple action have made so profound an impression? Certainly not merely because it was taken as a symbol of power. Many other illustrations of power, far more striking to the European mind, had been seen and, for all practical purposes, forgotten. The Swazi greets his fellow, or his visitor, with uplifted hand. Here was the familiar gesture, warm with friendliness in a foreign country, and at the same time arresting in its consequences. It was one of the few things they saw that fitted immediately into their own well-established social framework, and so it produced a quick impression and a lasting effect.

I take another case from the same community. Even acute observers often assert of the Swazi the same kind of observation that has been made of the Bantu in general: "The Bantu mind is endowed with a wonderful memory." [2] Yet this sort of statement never seems to have been submitted to any careful experimental test.[3] If such tests were carried out, it would most certainly be found that individual differences are about as pronounced as they are in a European community, and, a fact more to our present purpose, that the lines of accurate and full recall are very largely indeed, just as they are with us, a matter of social organization, with its accepted scales of value.

I myself, having listened to numerous stories about the marvelous word-perfect memory of the Swazi from his childhood up, and having been credibly informed that I could test these stories, with complete certainty of confirmation, upon any person I liked, arranged a simple experiment. Choosing at random a boy of eleven or twelve years of age, a native interpreter and myself concocted a brief message of about twenty-five words which the boy was to take from one end to another of a village. The journey took him about two minutes. The message was given to him very carefully twice over, and he did not know that he was being kept under observation. He was given a lively inducement to be accurate. He delivered the message with three important omissions, doing certainly no better than an English boy of the same age might do. Several times also I tried, with natives of varied ages and both sexes, common observation and description tests, something like the ones I have already recorded in this book, but with modifications so as to make them of greater intrinsic interest to a native observer. The results were much the same as they would have been for similar tests in a typical European group, neither better nor worse.

[2] Henri A. Junod, *The Life of a South African Tribe* (London, 1927), Vol. II, p. 619.

[3] It seems very curious that, while a mass of excellent experimental observation has been carried out upon the special sense reactions of relatively primitive people (see, e g., *Report of the Cambridge expedition to the Torres Straits*, Cambridge, 1903), little controlled investigation has been made upon their higher mental processes. Yet the latter would almost certainly reveal many extremely interesting results, and might go far to correct current views with regard to profound differences of mental life between civilized and uncivilized peoples.

Nevertheless, it is not difficult to show that the common belief has some ground. For example, once, when I was talking with a prominent Scottish settler in Swaziland who has an extensive and sound knowledge of the native, he repeated the usual stories of exceedingly accurate and detailed memory. I told him of my own tests, and he at once agreed that his assertions held good only provided the native were taken in his own preferred fields of interest. Now most Swazi culture revolves around the possession and care of cattle. Cattle are the center of many of the most persistent and important social customs. The settler himself suggested a test case. He guaranteed that his herdsman would give me a prompt and absolutely literal description of all the cattle which he, the owner, had bought a year earlier. The herdsman had been with him while the transactions were completed, and had then driven the beasts back to the main farm. Immediately after the purchase, the cattle had been dispersed to different places and the herdsman had seen them no more. The settler himself had his own written records of the deals, and naturally could not himself remember the details without looking them up. It was arranged that he should not himself look at his records, or interview the herdsman. At the moment, the native was found to be at a "beer-drink," and inaccessible in more ways than one. The next day, however, the man was sent to me. He walked some twenty miles and brought with him the sealed book of accounts, which, in any case, he was not able to read. He knew nothing whatever of the reason for his journey. I asked him for a list of the cattle bought by his employer the year previously, together with whatever detail he cared to give. Squatting on the ground, apparently wholly unmoved, he rapidly recited the list. This was as follows:

From Magama Sikindsa, one black ox for £4;

From Mloyeni Sifundra, one young black ox for £2;

From Mbimbi Maseko, one young black ox, with a white brush to its tail, for £2;

From Gampoka Likindsa, one young white bull, with small red spots, for £1,

From Mapsini Ngomane and Mpohlonde Maseko, one red cow, one black heifer, one very young black bull for £3 in all;

From Makanda, one young grey ox, about two years old, for £3;

From Lolalela, one spotted five year old cow, white and black, for £3, which was made up of two bags of grain and £1;

From Mampini Mavalane, one black polly cow, with gray on the throat, for £3;

From Ndoda Kadeli, one young red heifer, the calf of a red cow, and with a white belly, for £1.

My notes, made at the time, say that the herdsman, a native of something over forty years, "showed no hesitation, no apparent interest, and certainly no excitement. He seemed to be reciting a well-known exercise and in no way reconstructing the deals on the basis of a few definitely remembered details."

The list was correct in every detail but two. The price of the second black ox mentioned was £1. 10s., and the "black" heifer from Mpohlonde Maseko was described in the book as "red." Against these trifling errors, it must be remembered that the herdsman had himself no say in the price of the beasts, and had merely overheard the bargains made by his master; and further that native color names are apt to be rather widely ambiguous.

It seems certain that this was in no way an isolated and remarkable case. The Swazi herdsman has generally an accurate and prodigiously retentive capacity to recall the individual characteristics of his beasts. An animal may stray and get mixed up with other herds. It may be away for a very long time. However long the interval, if the owner comes with a description of the missing beast, his word is almost never questioned, and he is peaceably allowed to drive the

animal back. It is true, that, in spite of this, cattle were formerly all earmarked —a custom that appears to have fallen into disuse except in the case of the Royal herds—but altogether apart from these special marks, by common consent, the native herdsman always remembers his beasts individually.

And why should he not? Just as the policeman's uplifted hand was noteworthy because of the familiar social background, so the individual peculiarities of the cattle can be recalled freshly and vividly, because herds, and all dealings with them, are of tremendous social importance.

We can now see the general psychology underlying the way in which social conditions settle the matter of individual recall. Every social group is organized and held together by some specific psychological tendency or group of tendencies, which give the group a bias in its dealings with external circumstances. The bias constructs the special persistent features of group culture, its technical and religious practices, its material art, its traditions and institutions, and these again, once they are established, become themselves direct stimuli to individual response within the group. Perhaps, in some so far unexplained way, the social bias of the group may work its way, by actual inheritance, into at least some of the individual members; perhaps all that happens is that it appears in the individual through the pervasive influence of one of the many forms of social suggestion. In any case, it does immediately settle what the individual will observe in his environment, and what he will connect from his past life with this direct response. It does this markedly in two ways. First, by providing that setting of interest, excitement and emotion which favors the development of specific images, and secondly, by providing a persistent framework of institutions and customs which acts as a schematic basis for constructive memory.

Social Psychology and the Manner of Recall

I shall state briefly three principles. I do this with great hesitation. Others could perhaps be derived from the general discussion. In an uncharted realm like the present one, any tentative expression of laws can do no more than form a basis for a further exploration of the relevant facts. The principles, such as they are, must stand or fall as more facts become known. What is beyond dispute is that remembering, in a group, is influenced, as to its manner, directly by the preferred persistent tendencies of that group.

1. In whatever field, where social organization has no specifically directed organizing tendencies, but only a group of interests, all about equally dominant, recall is apt to be of the rote recapitulatory type. This very often is the case over a wide field of daily happenings in the primitive group.

2. Whenever there are strong, preferred, persistent, specific, social tendencies, remembering is apt to appear direct, and as if it were a way of reading off from a copy, and there is a minimum of irrelevance. It may perhaps be that this is due to the adoption of a direct image type of recall, supplemented by the help of prevailing social "schemata" which take the form of persistent customs.

3. Whenever strong, preferred, persistent, social tendencies are subjected to any form of forcible social control (e.g., are disapproved by an incoming superior people, or are opposed to the general immediate trend of social development in the group), social remembering is very apt to take on a constructive and inventive character, either wittingly or unwittingly. Its manner then tends to become assertive, rather dogmatic and confident, and recall will probably be accompanied by excitement and emotion.

Each of these principles has found illustration in the preceding discussion. Obviously they all stand in need of further differentiation before, some day, the whole story of the social control of remembering can be written.

2.

THE DEFINITION OF THE SITUATION

By William I. Thomas and Florian Znaniecki

We cannot enter here into detailed indications of what social technology should be, but we must take into account the chief point of its method—the general form which every concrete problem of social technique assumes. Whatever may be the aim of social practice—modification of individual attitudes or of social institutions—in trying to attain this aim we never find the elements which we want to use or to modify isolated and passively waiting for our activity, but always embodied in active practical *situations*, which have been formed independently of us and with which our activity has to comply.

The situation is the set of values and attitudes with which the individual or the group has to deal in a process of activity and with regard to which this activity is planned and its results appreciated. Every concrete activity is the solution of a situation. The situation involves three kinds of data: (1) The objective conditions under which the individual or society has to act, that is, the totality of values—economic, social, religious, intellectual, etc.—which at the given moment affect directly or indirectly the conscious status of the individual or the group. (2) The pre-existing attitudes of the individual or the group which at the given moment have an actual influence upon his behavior. (3) The definition of the situation, that is, the more or less clear conception of the conditions and consciousness of the attitudes. And the definition of the situation is a necessary preliminary to any act of the will, for in given conditions and with a given set of attitudes an indefinite plurality of actions is possible, and one definite action can appear only if these conditions are selected, interpreted, and combined in a determined way and if a certain systematization of these attitudes is reached, so that one of them becomes predominant and subordinates the others. It happens, indeed, that a certain value imposes itself immediately and unreflectively and leads at once to action, or that an attitude as soon as it appears excludes the others and expresses itself unhesitatingly in an active process. In these cases, whose most radical examples are found in reflex and instinctive actions, the definition is already given to the individual by external conditions or by his own tendencies. But usually there is a process of reflection, after which either a ready social definition is applied or a new personal definition worked out.

Let us take a typical example out of the fifth volume of the present work, concerning the family life of the immigrants in America. A husband, learning of his wife's infidelity, deserts her. The objective conditions were: (1) the social institution of marriage with all the rules involved; (2) the wife, the other man, the children, the neighbors, and in gen-

From W. I. Thomas and F. Znaniecki, *The Polish Peasant in Europe and America* (New York: Alfred A Knopf, Inc., 1927), Vol. I. Copyright 1918, 1919, 1920, 1927, by Alfred A. Knopf, Inc. Reprinted by permission of the authors and the publisher.

eral all the individuals constituting the habitual environment of the husband and, in a sense, given to him as values; (3) certain economic conditions; (4) the fact of the wife's infidelity. Toward all these values the husband had certain attitudes, some of them traditional, others recently developed. Now, perhaps under the influence of the discovery of his wife's infidelity, perhaps after having developed some new attitude toward the sexual or economic side of marriage, perhaps simply influenced by the advice of a friend in the form of a rudimentary scheme of the situation helping him to "see the point," he defines the situation for himself. He takes certain conditions into account, ignores or neglects others, or gives them a certain interpretation in view of some chief value, which may be his wife's infidelity, or the economic burdens of family life of which this infidelity gives him the pretext to rid himself, or perhaps some other woman, or the half-ironical pity of his neighbors, etc. And in this definition some one attitude—sexual jealousy, or desire for economic freedom, or love for the other woman, or offended desire for recognition—or a complex of these attitudes, or a new attitude (hate, disgust) subordinates to itself the others and manifests itself chiefly in the subsequent action, which is evidently a solution of the situation, and fully determined both in its social and in its individual components by the whole set of values, attitudes, and reflective schemes which the situation included. When a situation is solved, the result of the activity becomes an element of a new situation, and this is most clearly evidenced in cases where the activity brings a change of a social institution whose unsatisfactory functioning was the chief element of the first situation.

3.

GROUP INFLUENCES UPON THE FORMATION OF NORMS AND ATTITUDES

By Muzafer Sherif

Hypothesis to Be Tested

We have seen that if a reference point is lacking in the external field of stimulation, it is established internally as the temporal sequence of presentation of stimuli goes on. Accordingly we raise the problem: What will an individual do when he is placed in an objectively unstable situation in which all basis of comparison, as far as the external field of stimulation is concerned, is absent? In other words, what will he do when the external frame of reference is eliminated, in so far as the aspect in which we are interested is concerned? Will he give a hodgepodge of erratic judgments? Or will he establish a point of reference of his own? *Consistent* results in this situation may be taken as the index of a subjectively evolved frame of reference.

We must first study the tendency of the individual. We must begin with the individual in order to do away with the dualism between "individual psychology" and "social psychology." In this way we can find the differences between individual responses in the individual situation and in the group situation.

Coming to the social level we can push our problem further. What will a group of people do in the same unstable

From Muzafer Sherif, *The Psychology of Social Norms* (New York: Harper & Brothers, 1936), and from M. Sherif, "An Experimental Approach to the Study of Attitudes," *Sociometry*, 1937, I, 90–98, with the permission of the author and the publishers.

situation? Will the different individuals in the group give a hodgepodge of judgments? Or will they establish a collective frame of reference? If so, of what sort? If every person establishes a norm, will it be his own norm and different from the norms of others in the group? Or will there be established a common norm peculiar to the particular group situation and depending upon the presence of these individuals together and their influence upon one another? If they in time come to perceive the uncertain and unstable situation which they face in common in such a way as to give it some sort of order, perceiving it as ordered by a frame of reference developed among them in the course of the experiment, and if this frame of reference is peculiar to the group, then we may say that we have at least the prototype of the psychological process involved in the formation of a norm in a group.

The Autokinetic Effect: Its Possibilities for Our Problem

With these considerations clearly in mind, our first task has been to find objectively unstable situations that would permit themselves to be structured in several ways, depending on the character of the subjectively established reference points. From among other possible experimental situations that could be used to test our hypothesis, we chose to use the situation that is suitable to produce autokinetic effects, as meeting the requirements demanded by our hypothesis.

The conditions that produce the autokinetic effect afford an excellent experimental situation to test our hypothesis. We can easily get the autokinetic effect. In complete darkness, such as is found in a closed room that is not illuminated, or on a cloudy night in the open when there are no other lights visible, a single small light seems to move, and it may appear to move erratically in all directions. If you present the point of light repeatedly to a person, he may see the light appearing at different places in the room each time, especially if he does not know the distance between himself and the light. The experimental production of the autokinetic effect is very easy and works without any exception, provided, of course, that the person does not use special devices to destroy the effect. For in a completely dark room a single point of light *cannot* be localized definitely, because there is nothing in reference to which you can locate it. The effect takes place even when the person looking at the light knows perfectly well that the light is not moving. These are facts which are not subject to controversy; any one can easily test them for himself. In this situation not only does the stimulating light appear erratic and irregular to the subject, but at times the person himself feels insecure about his spatial bearing. This comes out in an especially striking way if he is seated in a chair without a back and is unfamiliar with the position of the experimental room in the building. Under these conditions some subjects report that they are not only confused about the location of the light; they are even confused about the stability of their own position.

The autokinetic effect is not a new artificial phenomenon invented by the psychologists. It is older than experimental psychology. Since it sometimes appears in the observation of the heavenly bodies, the astronomers[1] had already noticed it and offered theories to explain it.

[1] For a concise history of the autokinetic effect as a scientific problem, see H. F. Adams, "Autokinetic Sensations," *Psychol. Monog.*, 1912, No. 59, 32–44. Several theories have also been advanced by psychologists to explain the nature of the autokinetic effect. These are immaterial for our present problem. The important fact for us to remember is that the autokinetic effect is produced whenever a visual stimulus object lacks a spatial frame of reference.

We have studied the influence of such social factors as *suggestion* and the *group situation* on the extent and direction of the experimental movement. The study of the extent of the experienced movement permits a quantitative study for the approach to the formation of norms. We shall therefore report on the extent of movement.

Procedure

We have studied the extent of the movement experienced in two situations: (1) when alone, except for the experimenter (in order to get the reaction of the individual unaffected by other experimentally introduced social factors, and thus to gain a basic notion about the perceptual process under the circumstances); and (2) when the individual is in a group situation (in order to discover modifications brought about by membership in the group).

The subject was introduced into the group situation in two ways: (1) He was brought into a group situation after being experimented upon when alone. This was done to find out the influence of the group situation after he had an opportunity to react to the situation first in accordance with his own tendencies and had ordered it subjectively in his own way. (2) He was first introduced to the situation in the group, having no previous familiarity with the situation at all, and afterwards experimented upon individually. This was done to find out whether the perceptual order or norm that might be established in the group situation would continue to determine his reaction to the same situation when he faced it alone. This last point is crucial for our problem. The others lead up to it and clarify its implications.

The subjects, apparatus, and procedures used will be only briefly outlined here. They are reported in full elsewhere.[2] The experiments were carried on in dark rooms in the Columbia University psychological laboratory. The subjects were graduate and undergraduate male students at Columbia University and New York University. They were not majoring in psychology. They did not know anything about the physical stimulus setup, or the purpose of the experiment. There were 19 subjects in the individual experiments; 40 subjects took part in the group experiments.

Individual Experiments

The stimulus light was a tiny point of light seen through a small hole in a metal box. The light was exposed to the subject by the opening of a small shutter controlled by the experimenter. The distance between the subject and the light was five meters. The observer was seated at a table on which was a telegraph key. The following instructions were given in written form: "When the room is completely dark, I shall give you the signal *Ready*, and then show you a point of light. After a short time the light will start to move. As soon as you see it move, press the key. A few seconds later the light will disappear. Then tell me the distance it moved. Try to make your estimates as accurate as possible."

These instructions summarize the general procedure of the experiment. A short time after the light was exposed following the *Ready* signal, the subject pressed the key; this produced a faint but audible ticking in the timing apparatus indicating that the subject had perceived the (autokinetic) movement. The exposure time, after the subject pressed the key to indicate that he had begun to experience the movement, was two seconds in all cases. The light was physically stationary during the entire time and was not moved at all during any of the experiments.

After the light had disappeared, the subject reported orally the distance

[2] M. Sherif, "A Study of Some Social Factors in Perception," *Arch. Psychol.*, 1935, No. 187.

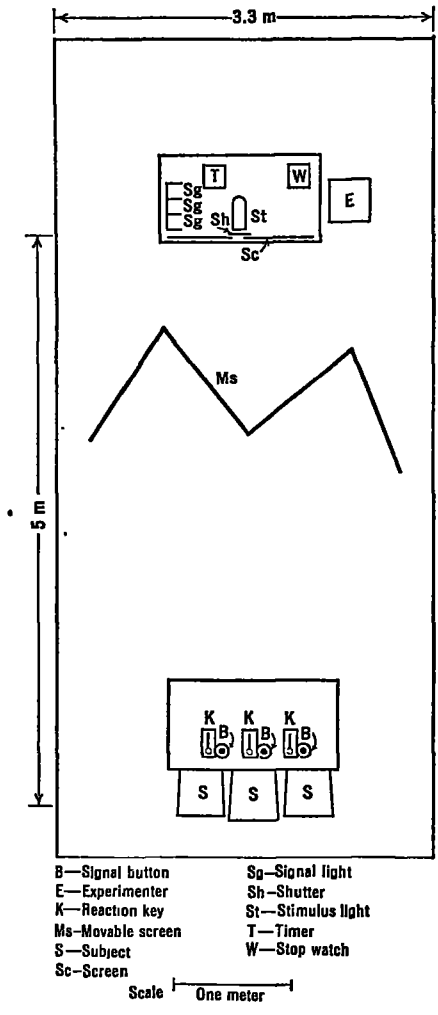


FIG. 1. Plan of experimental room.

through which it had moved as he experienced it. The experimenter recorded each judgment as soon as it was spoken by the subject, writing each one on a separate sheet of a small paper pad. One hundred judgments were obtained from each subject. The subjects reported their estimates in inches (or fractions of inches).

The quantitative results are reported elsewhere.[3] Here we shall present only the conclusions reached on the basis of these quantitative results, and give some important introspections that clarify these conclusions further.

The results unequivocally indicate that when individuals perceive movements which lack any other standard of comparison, *they subjectively establish a range of extent and a point (a standard or norm) within that range which is peculiar to the individual,* that may differ from the range and point (standard or norm) established by other individuals. In other words, when individuals repeatedly perceive movement which offers no objective basis for gauging the extent of movement, there develops within them, in the course of a succession of presentations, a standard (norm or reference point). This subjectively established standard or norm serves as a reference point with which each successive experienced movement is compared and judged to be short, long, or medium—within the range peculiar to the subject.

To express the point more generally, we conclude that in the absence of an objective range or scale of stimuli and an externally given reference point or standard, each individual builds up a range of his own and an internal (subjective) reference point within that range, and each successive judgment is given within that range and in relation to that reference point. The range and reference point established by each individual are peculiar to himself when he is experimented upon alone.

In the second series of the individual experiments, it was found that once a *range,* and a point of reference within that range, is established by an individual, there is a tendency to preserve these in the experiments on subsequent days. A second and third series of 100 judgments each show a median score for a given subject which is very similar to

[3] M. Sherif, "A Study of Some Social Factors in Perception," *Arch. Psychol.*, 1935, No. 187.

that found in the first series, but with a reduced variability.

The written introspective reports obtained from every observer at the end of the experiment further corroborate these conclusions based upon the quantitative results. Introspections of the following sort, which are typical, show that the subjects first found it hard to estimate distance because of the lack of externally given reference points or standards:

"Darkness left no guide for distance."

"It was difficult to estimate the distance the light moved, because of the lack of visible neighboring objects."

"There was no fixed point from which to judge distance."

Introspections of the following sort indicate that the subjects developed standards of their own in the absence of objective ones:

"Compared with previous distance."'

"Used first estimate as standard."

This reveals once more the general psychological tendency to experience things in relation to some frame of reference. What we did in the group experiments was to carry this finding of experimental psychology into social psychology and note how it operates when the individual is in a group situation.

Group Experiments

On the basis of the results given, the problem which we must study in the group situation becomes self-evident. The individual experiences the external field of stimulation in relation to a frame of reference. When a frame of reference is given in the objective situation, this will usually determine in an important way the structural relationships of the experience; in such cases all other parts will be organized as determined or modified by it. But at times such an objective frame of reference is lacking—the field of stimulation is unstable, vague, and not well structured. In this case the individual perceives the situation as shaped by his own internally evolved frame of reference. The questions that arise for the experiment in the group situation, then, are the following:

How will an individual who is found in the group situation perceive the stimulus field? Will there evolve in him again a range and a standard (norm) within that range that will be peculiar to him, as was the case when individuals were experimented on alone? Or will group influences prevent him from establishing any well-defined range and reference point within that range, and thus spoil his capacity to perceive the uncertain situation in any sort of order? Or will the individuals in the group act together to establish a range, and a reference point within that range, which are peculiar to the group? If such a range and reference point are established, what will be the influence of such a group product on the individual member when he subsequently faces the same stimulus situation alone?

The questions outlined above represent more or less pure cases. There are, of course, other possibilities that lie between these pure cases.

With these questions, we face directly the psychological basis of social norms. We must admit that we have reduced the process to a very simple form. But the first fundamental psychological problem is the way an individual perceives a stimulus situation. The behavior follows upon this perception rather than upon the bald physical presence of the stimulus. There is no simple and direct correlation between the stimulus and the subsequent behavior, especially on the level of behavior with which we are dealing. A simple perceptual situation is the first requirement for experimental analysis of the problem.

We purposely chose a stimulus situation in which the external factors are unstable enough, within limits, to allow

the internal factors to furnish the dominating role in establishing the main characteristics of organization. This enables us to say that any consistent product in the experience of the individual members of the group, differing from their experience as isolated individuals, is a function of their interaction in the group.

We do not face stimulus situations involving other people, or even the world of nature around us, in an indifferent way; we are charged with certain modes of readiness, certain established norms, which enter to modify our reactions. This important consideration shaped the planning of the group experiments. We studied the differences between the reactions (*a*) when the individuals first faced our stimulus situation in the group, and (*b*) when they faced the group situation after first establishing their individual ranges and norms in the individual situation. Accordingly, twenty of the subjects began with the individual situation and were then put into groups in subsequent experimental sessions; the other twenty started with group sessions and ended with individual sessions.

This rotation technique enabled us to draw conclusions regarding the following important questions: How much does the individual carry over from his individually established way of reacting to a later situation when facing the same stimulus in the group? How much will he be influenced by his membership in the group after once his range and norm have been established individually when alone? How will he experience the situation when alone, after a common range and norm have been established peculiar to the group of which he is a member? In short, will the common product developed in the group serve as a determining factor when he subsequently faces the same situation *alone?*

The experimental setting was in general the same as in previous experiments. Of course, additional techniques were necessary to handle two or more members of a group at the same time. One major addition was the use of signal lights. As the subjects were new to the experimenter, he could not tell from the voice alone who was giving a judgment. So as each subject gave his judgment aloud, he pressed a push button connected with a dim signal light of a particular color by which the experimenter might know who the speaker was.

There were eight groups of two subjects each and eight groups of three subjects each. Four groups in each of the two categories started with the individual situation (one whole session for each individual), and then functioned as groups. Four groups in each category started in group situations for the first three sessions on three different days (all subjects of each group being present), and were then broken up and studied in the individual situation.

In order to make the relation of individual members to one another as natural as possible, within the limits of the experimental setting, the subjects were left free as to the order in which they would give their judgments. In fact, they were told at the start to give their judgments in random order as they pleased. Whether the judgments of the person who utters his first have more influence than the others becomes a study in leadership, which is a further interesting problem. Perhaps such studies will give us an insight into the effect of polarization on the production of norms in a group situation. But from the examination of our results, we can say that the reporting of the judgments has a gradual cumulative effect; aside from whatever influence the first judgment may have on the second or third at a given moment, the judgments of the third individual at a given presentation are not without effect on the subsequent judgments of the first subject in the round of presentations following. Thus the production of an established group

influence is largely a temporal affair and not the outcome of this or that single presentation. We shall refer to this point again later.

Besides the quantitative judgments obtained during the experiments, the subjects were asked at the end of each experimental session to write down their introspections. Questions were asked which aimed at finding whether they became conscious of the range and norm they were establishing subjectively. These questions were: "Between what maximum and minimum did the distances vary?" "What was the most frequent distance that the light moved?"

Certain facts stand out clearly from our results. We may summarize these facts in a few paragraphs.

When an individual faces this stimulus situation, which is unstable and not structured in itself, he establishes a range and norm (a reference point) within that range. The range and norm that are developed in each individual are peculiar to that individual. They may vary from the ranges and norms developed in other individuals in different degrees, revealing consistent and stable individual differences. The causes of these individual differences are difficult problems in themselves, the understanding of which may prove to be basic to a satisfactory understanding of our problem. But for the time being it may be worth while to work on our main theme.

When the individual, in whom a range and a norm within that range are first developed in the individual situation, is put into a group situation, together with other individuals who also come into the situation with their own ranges and norms established in their own individual sessions, the ranges and norms tend to converge. But the convergence is not so close as when they first work in the group situation, having less opportunity to set up stable individual norms. (See left-hand graphs, Figures 2 and 3.)

When individuals face the same unstable, unstructured situation as members of a group for the first time, a range and a norm (standard) within that range are established, which are peculiar to the group. If, for the group, there is a rise or fall in the norms established in successive sessions, it is a group effect; the norms of the individual members rise and fall toward a common norm in each session. To this the objection may be raised that one subject may lead, and be uninfluenced by other members of the group; the group norm is simply the leader's norm. To this the only possible empirical reply is that in our experiments the leaders were constantly observed to be influenced by their followers—if not at the moment, then later in the series and in subsequent series. Even if the objection has occasional force, the statement regarding group norms is in general true. Even if the group norm gravitates toward a dominating person, the leader represents a polarization in the situation, having a definite relationship toward others which he cannot change at will. If the leader changes his norm after the group norm is *settled* he may *cease thereupon to be followed*, as occurred several times strikingly in our experiments. In general, such cases of complete polarization are, however, exceptional. (See right-hand graphs, Figures 2 and 3.)

The fact that the norm thus established is peculiar to the group suggests that there is a factual psychological basis in the contentions of social psychologists and sociologists who maintain that new and supra-individual qualities arise in the group situations. This is in harmony with the facts developed elsewhere in the psychology of perception.

When a member of a group faces the same situation subsequently *alone*, after once the range and norm of his group have been established, he perceives the situation in terms of the range and norm that he brings from the group situation. This psychological fact is important in

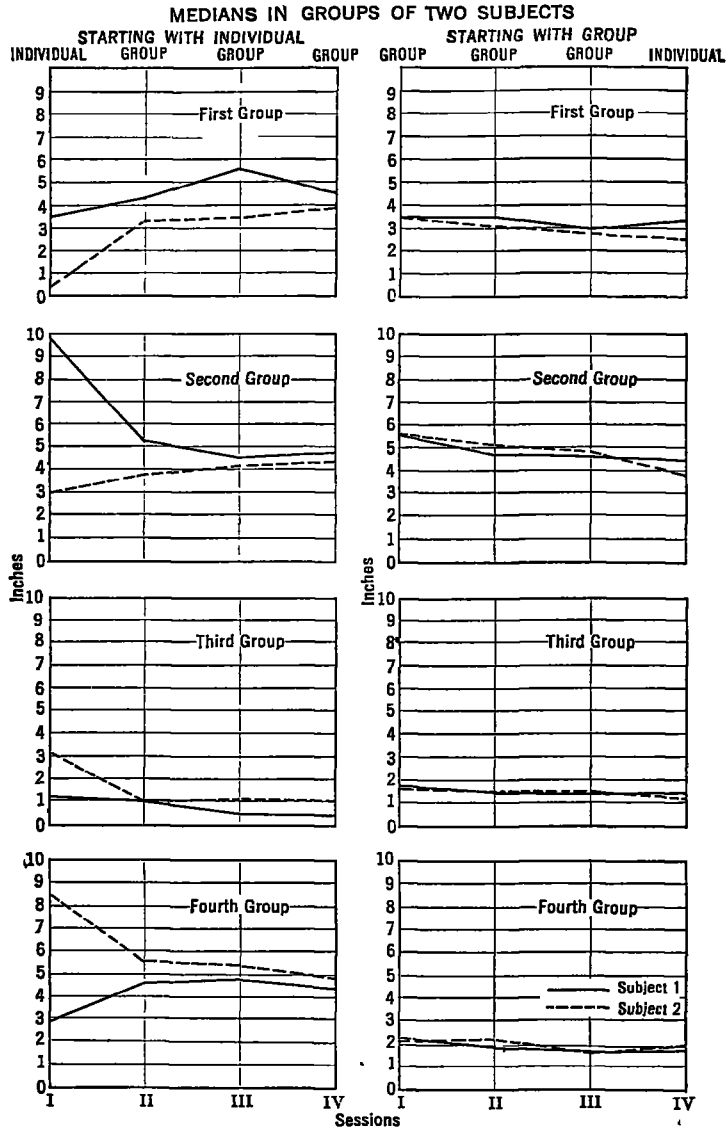


FIGURE 2

that it gives a psychological approach to the understanding of the "social products" that weigh so heavily in the problem of the stimulus situation.

DISCUSSION OF RESULTS

The experiments, then, constitute a study of the formation of a norm in a simple laboratory situation. They show in a simple way the basic psychological process involved in the establishment of social norms. They are an extension into the social field of a general psychological phenomenon that is found in perception and in many other psychological fields namely, that our experience is organized

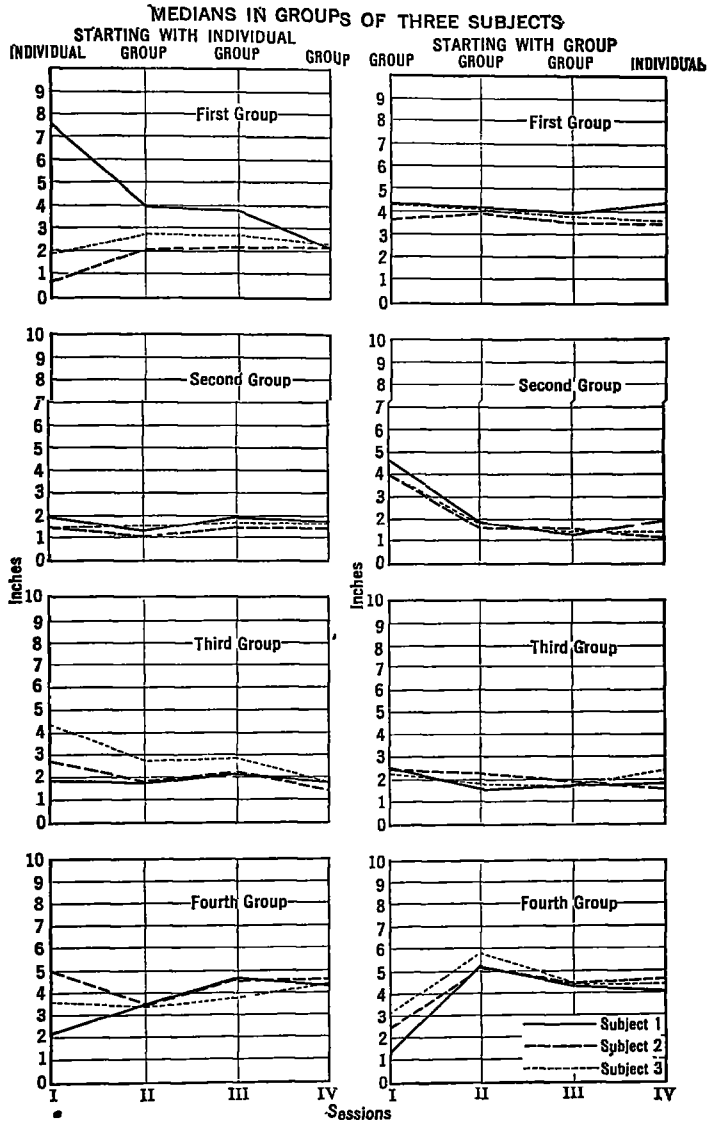


FIGURE 3

around or modified by frames of reference participating as factors in any given stimulus situation.

On the basis of this general principle considered in relation to our experimental results, we shall venture to generalize. The psychological basis of the established social norms, such as stereotypes, fashions, conventions, customs and values, is the formation of common frames of reference as a product of the contact of individuals. Once such frames of reference are established and incorporated in the individual, they enter as important factors to determine or modify his reactions to the situations that he

will face later—social, and even non-social at times, especially if the stimulus field is not well structured. Of course this is a very general statement. It gives us only the broad basic principle with which we can approach any specific social norm. In each instance we have to take into consideration particular factors that participate in its production.

Our experiments merely show the formation of a specific frame of reference in a group situation. Our experimental situation, we must say, does not represent a pressing social situation such as is found in the reality of everyday life with its intense hunger, sex and ego factors. It is simply one unstable, unstructured situation that is new for the subjects participating in the experiments. They have no set norms of reaction to it. The situation, therefore, is plastic enough to be structured by the effect of experimentally introduced social factors such as suggestion, prestige, and other group influences.

In this situation, within certain limits, there is no "right" or "wrong" judgment. One subject demonstrated this spontaneously during the experiment, in spite of the fact that he was not supposed to talk: "If you tell me once how much I am mistaken, all my judgments will be better." Not being sure about the correctness of his judgments, the subject feels uneasy. This we know from the introspective reports. In the individual situation, the individual structures the unstructured situation by furnishing his own peculiar range and reference point. In the group situation the members of the group tend to structure the situation by converging toward a common norm in their judgments. If in the beginning of the experimental situation they start with divergent judgments, in the course of the experiment they come together, the divergent one feeling uncertain and even insecure in the deviating position of his judgments. This convergence is not brought about instantly by the direct influence of one or two judgments of the other members of the group. It exhibits a temporal pattern. The following introspection of a member of one of the groups, written in answer to the question, "Were you influenced by the judgments of the other persons during the experiments?" illustrates our point clearly. This subject wrote, "Yes, but not on the same observation. My judgment in each case was already made, and I did not change to whatever the other person said. But on subsequent observations my judgments were adjusted to their judgments. After a number of observations, the previous agreement or lack of it influenced me in adjusting my own perspective."

Despite the above case, every individual need not be aware of the fact that he is being influenced in the group situation, or that he and the other members are converging toward a common norm. In fact, the majority of the subjects reported not only that their minds were made up as to the judgment they were going to give before the others spoke, but that they were not influenced by the others in the group. This fact is in harmony with many observations in the psychology of perception; we know that the general setting in which a stimulus is found influences its properties, and that unless we take a critical and analytic attitude toward the situation we need not be aware that its properties are largely determined by its surroundings. This is the general principle underlying the psychology of "illusions."

It must be said that in our experimental setting the subjects are not moved by a common interest or drive such as is found in a group that faces a common danger, such as starvation or the cruel authority of a tyrant. In these vital situations there is a certain gap that has to be filled. Until this gap is properly filled, the instability of the situation continues. If the norms and slogans that arise under the stress of a

tense and uncertain situation that requires a solution do not meet the situation adequately, the instability is not removed, and new norms and new slogans are likely to arise until the tension is removed. For example, in a hungry mass of people searching for food, a leader or a small party may standardize certain norms or slogans as guides to an outlook upon the situation and as guides to action. If these norms do not lead to the satisfaction of hunger, other leaders or interested parties may spring up and standardize other norms or slogans. This (dialectic) dynamic process moves on and on until the appropriate norms or slogans are reached that meet the situation best. For example, many in America who were enthusiastically motivated into action during the First World War by the slogan, "A war to end war!" are totally deaf to such a slogan after seeing the results of that war.

In spite of laboratory simplicity and lack of vital motivational factors, our experimental setting possesses certain important characteristics of actual group situations.

An Experimental Approach to the Study of Attitudes

From the foregoing experiments we conclude that when an individual perceives autokinetic movement which lacks an objective standard of comparison, and is asked during repeated stimulation to report in terms of the extent of movement, he subjectively establishes a range of extent and a point (a standard or norm) within that range which is peculiar to himself, differing from the range and the point (standard or norm) established by other individuals. When individuals face the same unstable, unstructured situation as members of a group *for the first time*, a range and a norm (standard) within that range are established which are peculiar to the group. When a member of the group faces the same situation subsequently *alone*, after once the range and norm of his group have been established, he perceives the situation in terms of the range and norm that he brings from the group situation. The ranges and norms established are not prescribed arbitrarily by the experimenter or by any other agent. They are formed in the course of the experimental period and may vary from individual to individual, or from group to group, within certain limits.

Our concern being the study of social influence, we may go further and put the question: can we experimentally make the subject adopt a prescribed range and norm directed by specific social influences?

Different kinds of social influences may be experimentally utilized to define certain prescribed ranges and norms. Among many possible ones we took the following: (*a*) The influence of group situations on the individual as a member of the group. We have already mentioned the main conclusion of this previous work. (*b*) The influence of the direct suggestion of the experimenter in raising or lowering the reported extents of movement. (*c*) The influence of a fellow member with prestige (cooperating with the experimenter) on another ("naïve") member of the group. (*d*) The influence of one naïve member on the judgment of another. In this last case there is no prestige effect, because the subjects have not met each other prior to the experiment.

We shall say only a few words about the experiments under (*b*). If the subject is distributing his judgments, say, about three inches, without any socially introduced influence, the remark of the experimenter, "You are underestimating the distances" tends to raise the point round which the judgments are distributed to about five or six inches.

The following experiment under (*c*) shows how the autokinetic phenomenon can be utilized as a sensitive index of the prestige effect of one person on another.

Here we report verbatim the account of an experiment with prestige:

"Miss X and I (Assistant in Psychology, Columbia University) were subjects for Dr. Sherif. I was well acquainted with the experiment but Miss X knew nothing whatsoever about it. Since she was a close friend of mine, and I carried some prestige with her, Dr. Sherif suggested that it would be interesting to see if we could predetermine her judgments. It was agreed beforehand that I was to give no judgments until she had set her own standard. After a few stimulations it was quite clear that her judgments were going to vary around five inches. At the next appropriate stimulation, I made a judgment of twelve inches. Miss X's next judgment was eight inches. I varied my judgments around twelve inches and she did the same. Then I changed my judgment to three inches, suggesting to Dr. Sherif that he had changed it. She gradually came down to my standard, but not without some apparent resistance. When it was clear that she had accepted this new standard, Dr. Sherif suggested that I make no more judgments lest I might influence hers. He then informed her on a subsequent stimulation that she was underestimating the distance which the point moved. Immediately her judgments were made larger and she established a new standard. However, she was a little uneasy with it all, and before the experiment had progressed much farther, whispered to me, 'Get me out of here.'

"When we were again in my office, I told her that the point had not moved at all during the experiment. She seemed quite disturbed about it, and was very much embarrassed to know that we had been deceiving her. Noting her perturbation, I turned the conversation to other matters. However, several times during our conversation she came back to the subject, saying, 'I don't like that man' (referring to Dr. Sherif) and similar statements indicating her displeasure with the experience. It was not until some weeks later when she was again in my office that I discovered the full extent of her aversion. I asked her to serve as a subject for me in an experiment and immediately she exclaimed, 'Not down in *that* room,' pointing to Dr. Sherif's experimental room."

The experiment which will be given presently deals with the influence of a fellow member in the adoption of a prescribed norm. There were seven groups in this experiment, each group consisting of two members. In every group one subject cooperated with the experimenter, i.e., deliberately distributed his judgments within the range and around the norm assigned to him by the experimenter beforehand. The other subject was unaware of this predetermination. The degree of this "naive" subject's conformity to the norm and range of the cooperating subject may be taken as the index of the social influence. In all the groups the subject who was cooperating with the experimenter was the same person. This was done in order to keep the influencing member constant in all groups.

The range and norm prescribed for every group were different. For the first group, the prescribed range was 1–3 inches, 2 inches being the prescribed norm. For the second group, the prescribed range was 2–4, and 3 inches the norm, and so on to the eighth group for which the range and norm were 7–9 and 8, respectively. It will be observed that the prescribed range was rather narrow; consequently in the course of the experimental period the cooperating subject gave no judgments which deviated from the norm by more than one inch in either direction.

In the first experimental session, both subjects (the cooperating and the "naïve") took part. After each exposure of the point of light for two seconds, the subjects spoke their judgments aloud one at a time and the experimenter recorded

TABLE 1

DATA FROM GROUP 1, EXPERIMENTALLY OBTAINED FROM "NAÏVE" S

Prescribed	Session I (in group)	Session II (alone)
Range 1–3 inches	1–5 inches	1–4 inches
Norm 2 inches	3.36 inches	2.62 inches
No. of the 50 judgments falling within the prescribed range	41	47

these on separate sheets of different colored pads. In order not to stress the factor of primacy, the cooperating subject was instructed to let the other subject utter his judgment first, at least half the time. The social influence in our previous experiments with the autokinetic effect was found to be not so much a function of this and that separate judgments as of the temporal sequence of judgments. Fifty judgments were taken from each subject.

In the second session only the naive subject was present, so that we might see how much of the prescribed range and norm he carried from the first group session. In this individual session also, fifty judgments were taken. As the norm formation in the autokinetic effect is a fragile and, in a sense, artificial formation, such an arbitrary prescription may break down easily beyond a certain number of judgments. Our whole point is that the autokinetic effect can be utilized to show a general psychological tendency and not to reveal the concrete properties of norm-formation in actual life situations.

In the presentation of results we give the prescribed range and norm, and the number of judgments of the "naive" subject falling within the prescribed range, and his norms (as represented by the median of the distribution of his judgments) in the first (group) and second (individual) sessions. The means and medians of the distributions of the judgments given by the cooperating subject in the group sessions are not exactly identical with the prescribed norms, though the modes and ranges are the same. We did not think it necessary for him to memorize a perfectly normal distribution. Our aim is chiefly to show a fundamental psychological tendency related to norm-formation.

At the end of the second (individual) session the subject was asked to answer in writing four questions related to the problem. The answers to two of the questions further verify our former results. We shall therefore confine ourselves to the introspections given to the other two questions which are important for our present concern. These questions were: (1) What was the distance that the light most frequently moved? (this was formulated to find out whether the subjects became conscious of the norm formed in the course of the experiment); (2) Were you influenced by the judgments of the other person who was present during the first session? (this question was formulated in order to find out whether the subjects were conscious of the fact that they were being influenced by the cooperating subject).

The introspections of the subject in Group 1 are important for any theory of suggestion and norm formation:

1. "Most frequent distance was 2 inches. Seemed to be more consistently 2 inches second day than on first day.

2. "Yes, they were despite my efforts to be impartial. Probably many of my judgments were inordinately large be-

cause of small distances given by other subject. I think this was an attempt at avoiding suggestion and in so doing going to the other extreme. I do not think I was influenced by first day's judgments on the second day. I tried to be impartial in my judgments the first day. I felt resentment toward the other subject the first day because of the successive equal judgments by him. I tried to be objective toward this feeling: that is to banish the thought. But I feel that this resentment caused my judgments to differ from his by a greater amount than they would have if the judgments had been kept separate; that is if I had not heard his judgments. The second day I felt more independence in my judgments and I believe that these judgments were therefore more accurate."

* * *

From these results we may conclude that the subjects may be influenced to perceive an indefinite stimulus field in terms of an experimentally introduced norm. The degree of the influence may be different in different subjects, ranging from a large to a negligible amount. Even in the latter case, an influence on the norm (not in the range) is evident.

The introspections reveal that the subjects become conscious of the norm which develops in the course of the experiment. However, they need not be conscious of the fact that they are being influenced toward that norm by the other member of the group. In connection with this point, it is interesting to note that in some cases, the *conformity* to the prescribed range and norm when the *influencing* person is no longer present (Session II) is closer than the *conformity* produced by his actual presence.

It seems to us that the psychological process embodied in these facts may be basic to the daily phenomena of suggestion, especially to the role of suggestion in the formation of attitudes. It is not a rare occurrence in everyday life to react negatively or hesitatingly to suggestion on some topic raised by an acquaintance while in his presence, but to respond positively after leaving him (perhaps there is a disinclination to accept suggestions readily unless there is some strong prestige or pressing demand; to appear easily yielding is not so pleasant for an "ego").

Attitudes, whatever else they may be, imply *characteristic modes of readiness in reacting* to definite objects, situations and persons. Our experiment has demonstrated in a simple way how a *characteristic* kind of readiness may be experimentally obtained in relation to an indefinite stimulus field. Perhaps this may constitute a step in the direction of the truly psychological investigation of attitudes.

4.

A SOCIAL DETERMINANT OF THE LEVEL OF ASPIRATION

By Dwight W. Chapman and John Volkmann

The conditions which govern the setting of a level of aspiration (*Anspruchsniveau*), in the sense of an estimate of one's future performance in a given task, may be regarded as a special case of the effect upon a judgment of the frame of reference within which it is executed. Sherif has recently drawn attention to the general fact that all judgmental activities take place within such referential frame-

From *Journal of Abnormal and Social Psychology*, 1939, XXXIV, 225–238. Reprinted by permission of the authors and the American Psychological Association, Inc.

works.[1] The lability of the judgment, for example, varies inversely with the determinateness of the frame of reference. McGregor, too, has shown that predictive judgments similarly are influenced by the definiteness of structure of the system of knowledge relative to which they are made.[2]

Hitherto research on the level of aspiration has considered only those determinants which result from individual experiences of success and failure, as in the general law that success tends to raise the level, failure to lower it. But there are presumably important features in the frame of reference surrounding the setting of the aspiration-level which come from the social environment. Indeed, as Sherif indicates, the importance of the concept of a frame of reference lies in large part in the fact that it is the paradigm for the individual's interiorization of the norms, values, and standards of his culture.

One way in which the social environment might determine the level of aspiration of a given individual would be through his knowledge of the achievement of groups whose status or ability, relative to his own, he could assess. In actual life, men do not usually approach tasks in a vacuum of ignorance about the achievements of others. Whether their knowledge is accurate or false, the task is understood as something easy or difficult by social standards; and the frame of reference in such a case is richer than that produced merely by individual experience or conjecture.

The first of the experiments which we report here concerns the level of aspiration of subjects who have had no experience with the particular task in hand, but who are furnished information about the performance on that task of groups inferior, superior, or similar to their own group. The second experiment treats the same situation, with the exception that here the subjects are permitted to acquire considerable first-hand experience with the task to be performed. It seems possible, from the results, to make some generalization about the relative effects of personal experience and knowledge of the performance of other groups, when these two determinants are brought into competition.

The experiments correspond to the socially important case in which exhortation toward a level of aspiration (e.g., an ambition, an intention to act) makes use of the example of the accomplishments of other groups, in the face of more or less personal experience which would tend to keep the level stable. Thus, for example, the labor leader faces the problem of creating the confident belief that a union can be formed in some industry —sometimes in an industry where such action is a new idea to the rank and file workers, sometimes in an industry in which a history of organizational failures has led to discouragement. One device is obviously that of pointing to concrete examples of achievement in some other field. The auto worker may be encouraged to a sit-down strike by a knowledge that the rubber workers have successfully conducted one. Whatever change in aspiration-level is induced by a change in the frame of reference may have enormous social consequences: the new judgment may serve as a catalyst for major social changes in which whole groups abruptly revise their ambitions and perhaps their status. It would seem, then, of importance to know under what circumstances the socially-determined features of the frame of reference may modify the individually determined ones.

Experiment I: Procedure

Since in Experiment I the subjects stated their levels of aspiration before

[1] M. Sherif, *The Psychology of Social Norms* (New York: Harper & Brothers, 1936), Ch. 3.

[2] D. M. McGregor, "The Major Determinants of the Prediction of Social Events," *J. Abnor. & Soc. Psychol.*, 1938, XXXIII, 179–204.

having had any experience with the task, the term *level of aspiration* no longer fitted the definition given by J. D. Frank: ". . . the level of future performance in a familiar task which an individual, knowing his level of past performance in that task, explicitly undertakes to reach." [3] As the results of our experiment show, however, the level of aspiration estimated in advance of performance is estimated neither at random nor without reference to the ability to perform the task. The subject has some information upon which he can base his estimate, although knowledge of his actual performance would give him a great deal more.[4]

The actual content of the task used in Experiment I is of little importance, since the performance of the task followed the estimate of the level of aspiration. It consisted of a test of literary acquaintance, assembled solely for the limited purposes of the experiment. The test contained 50 items in multiple-choice form, and permitted work without a time-limit. The instructions, quoted below, showed two sample items. The subjects were students in extension courses in elementary psychology, and undergraduate students in intermediate courses in psychology—86 in number. Four experimental groups, A, B, C, and D, were formed by selecting students at random, and each group received a different set of instructions. The process of random selection was as follows: in a given classroom the first student in a row received instruction A, the second student instruction B, the third instruction C, the fourth instruction D, the fifth instruction A, and so on around the room. No student knew, however, that the instructions received by the other students were not the same as his.

Group A received no special instructions; the students in this group were not told how any other group had performed on the test. Group B were told that a group of authors and literary critics had made an average score of 37.2; group B would be likely to regard this other group as *superior* in respect of literary ability. Group C were told that a group of students in psychology had made an average score of 37.2; this was information about the performance of a *similar* group. Group D were told that a group of unselected WPA workers had made an average of 37.2; this was information about the performance of a group likely to be regarded by Group D as *inferior* in respect of literary ability. All groups were told the maximum score possible (50) and the approximate score to be obtained by chance alone (17). The score on the test was the number of questions correctly answered.

All groups received the following general instructions:

On the following pages is a test of acquaintance with literature. It consists of 50 questions like the following:

Example 1. *David Copperfield* was written by (1) Thackeray, (2) Dickens, (3) Thomas Hardy. 1 2 3

Example 2. The Blind Harp Player is a character in (1) *Werther*, (2) *Faust*, (3) *Wilhelm Meister*. 1 2 3

Each question is to be answered by encircling one of the numbers which follows it. If you do not know the correct answer, make your best possible guess.

Your score on the test will be the number of questions which you answer correctly. You cannot, therefore, obtain a score higher than 50. And since there are three possible choices for each question, you would probably obtain a score of about 17 by simply guessing.

Before turning the page, indicate on the line below the score which you expect to make on this test.

[3] J. D. Frank, "Individual Differences in Certain Aspects of the Level of Aspiration," *Am. J. Psychol*, 1935, XLVII, 119–128

[4] We hold, therefore, that the definition of *level of aspiration* might well be enlarged to include all such estimates, regardless of past experience.

TABLE 1

STATISTICAL CONSTANTS FOR THE ASPIRATION-LEVELS OF GROUPS IN EXPERIMENT I

Statistical constant	Group A No suggestion	Group B vs. experts	Group C vs. own average	Group D vs. inferiors
Number of subjects . .	22	22	22	20
Mean aspiration-level . .	26.95	23.09	31.09	33.05
σ of aspiration-levels . .	6.33	3.46	8.95	8.57
σ_{mean}	1.35	.74	1.91	1.92

TABLE 2

PROBABILITY OF TRUE DIFFERENCE BETWEEN MEAN ASPIRATION-LEVELS OF GROUPS IN EXPERIMENT I

Group	Group A	Group B	Group C	Group D
A		.994	.962	.996
B			.999	.999
C				.767

Group A received no further instructions. The instructions given to group B contained the following, inserted as the sentence next before the last one:

This test has been tried on a group of authors and literary critics, who made an average score of 37.2.

Group C received these additional instructions:

This test has been tried on a group of students in psychology, who made an average score of 37.2.

Group D received these additional instructions:

This test has been tried on a group of unselected WPA workers, who made an average score of 37.2.

EXPERIMENT I: RESULTS

Table 1 shows for each of the groups A–D the number of subjects in the group, the mean aspiration-level, the standard-deviation of the aspiration-level, and the standard-deviation of the mean. Table 2 shows the probability that the differences between the mean aspiration-levels are true differences. For purposes of discussion, let the mean aspiration-level of group A, 26.95, serve as a reference point; this group received no additional instructions, and is accordingly a control group. Group B, confronted with the ostensible performance of a *superior* group, sets its mean aspiration-level lower. Group C sets its mean to approach the performance of a group *similar* to it. Group D sets its aspiration-level even higher, showing a tendency to approach or exceed the performance of an *inferior* group. None of the mean estimates actually reached the suggested figure 37.2, however. All of the differences are highly reliable, with the exception of the difference between the means of groups C and D. In advance of actual performance of the task, the suggested achievements of other groups can change the level of aspiration.

EXPERIMENT II: PROCEDURE

The task of Experiment II consisted of four forms of 32 items each taken from

the Otis Self-Administering Tests of Mental Ability, Higher Examination, Forms A and B. The four forms were balanced for type of item. The subjects were students in the elementary course in psychology in the Summer Session who had not yet studied the topic of intelligence. They took the four forms on four successive days, one form per day. The instructions imposed a time-limit of six minutes. The test was called a "test of the ability to solve problems," rather than a test of intelligence.

First day. All subjects received the same instructions, which ran as follows:

This is a test of the ability to solve problems. It contains questions of different kinds. Here is a sample question already answered correctly. Notice how the question is answered: Which one of the five words below tells what an apple is?

1 flower, 2 tree, 3 vegetable, 4 fruit, 5 animal (4). The right answer, of course, is "fruit"; so the word "fruit" is underlined. And the word "fruit" is No. 4; so a figure 4 is placed in the parentheses at the end of the dotted line. This is the way you are to answer the questions.

If the answer to any question is a number or a letter, put the number or letter in the parentheses without underlining anything. Make all letters like printed capitals.

The test contains 32 questions. You are not expected to be able to answer all of them, but do the best you can. You will be allowed 6 min. after the examiner tells you to begin. Try to get as many right as possible. Be careful not to go so fast that you make mistakes. Do not spend too much time on any one question. No questions about the test will be answered by the examiner after the test begins. Lay your pencil down.

Do not turn this page until you are told to begin.

Second day. All subjects were told their first day's score; they then stated an aspiration-level, and took the test. The instructions read:

This is a test of the same kind as the test which you took yesterday. It likewise contains 32 questions, and you will be allowed the same time (6 minutes).

Your score on yesterday's test was ____.

Please write on the line below the score you think you will make on to-day's test. (The score is the number of questions correctly answered.) ____

Third day. The subjects were divided into two approximately equal groups, A and B, matched in respect of performance on the second day's test. The analysis of the results in Table 3 will show that the matching was adequate. Both groups were told their scores of the previous two days, in a general instruction which was similar to the second day's instruction, shown above. In addition, group A was told the following:

These tests, with the same time-allowance, were originally tried on a group of unselected WPA workers, who made an average score of 0.9 points (*above*, *below*) your score of yesterday.

Half of the subjects in group A were told "0.9 points above" and half "0.9 points below." The purpose of so doing was to suggest, *on the average*, a level of performance equal to the subject's level without arousing the subject's suspicion. The blanks were filled in with writing in ink, to conceal the fact that other subjects were receiving precisely the same suggestion. The subjects of group A were told, in effect, that a group likely to be regarded by them as being in some way inferior, had done as well as they.

Group B received a suggestion similar in form, but referring to a group likely to be regarded as superior:

These tests, with the same time-allowance, were originally tried on a group of New York members of the National Academy of Sciences, who made an average score of 0.9 points (*above*, *below*) your score of yesterday.

Fourth day. The general instructions followed the pattern of the second day's instructions; all three of the subject's previous scores were stated. The special

TABLE 3

STATISTICAL CONSTANTS FOR THE TWO GROUPS OF EXPERIMENT II ON SUCCESSIVE DAYS

Statistical constant	First day	Second day		Third day		Fourth day	
	Score	A–L	Score	A–L	Score	A–L	Score
Group A: WPA							
Number of subjects	24	24	24	23	24	23	23
Mean aspiration-level	13.42	16.17	17.46	19.52	19.58	21.30	18.26
σ of aspiration-levels	4.09	5.37	5.08	5.40	4.97	5.62	4.26
σ_{mean}			1.03	1.13		1.17	
Group B: NAS							
Number of subjects	25	24	25	23	24	23	23
Mean aspiration-level	12.96	16.58	17.40	20.09	20.33	21.39	19.65
σ of aspiration-levels	4.06	5.02	4.97	4.09	5.27	5.65	4.67
σ_{mean}			.99	.85		1.18	
Probability of true difference			.516	.655		.520	

instructions attempted to change the level of aspiration by representing the, *average performance of the group* as being considerably below, or above, the performance of the individual subject. Groups A and B are the same groups as those of the third day. Group A was told:

The average score of the class to date is 5.2 points *below* your average score to date.

Group B was told:

The average score of the class to date is 5.2 points *above* your average score to date.

The figure "5.2" was used for every subject.

EXPERIMENT II: RESULTS

Table 3 shows for group A and group B the number of subjects in the group, the mean scores and mean aspiration-levels, the standard-deviations and the standard-deviations of the mean. The last line of the table shows for the crucial data the probability that the difference between means is a true difference. The first figure in this line, .516, indicates that groups A and B were adequately matched on the basis of the second day's score; if the matching had been perfect, the figure would have been .500. The next two figures, .655 and .520, show that neither the information given on the third day nor that on the fourth day produced a reliable difference in the mean aspiration-levels. Under the conditions of this experiment, which included prior performance and knowledge of this performance, the level of aspiration was *not* changed by knowledge of the achievements of other groups.

DISCUSSION

The interpretation of the foregoing results requires an analysis of the frames of reference that apparently determined the levels of aspiration. Prominent features of these frames were their *anchoring points:* points which determine the position of a scale of judgment, and, in consequence, the particular judgments rendered in terms of this scale. Various agents can produce anchoring: specially designated stimuli; features of a perceptual frame of reference, such as the horizontal in visual space; points which the subject himself selects in the absence of stimulation and merely "holds in

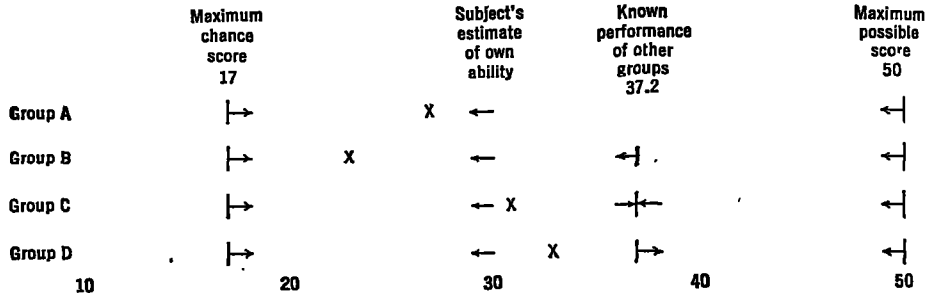


FIG. 1. An analysis of the frame of reference in experiment 1.

mind."[5] Anchoring can play an important role in the frame of reference of the affective judgment.[6]

Figure 1 presents an analysis of the frames of reference that were effective in Experiment I. The headings designate the anchoring points: the approximate score to be attained by chance alone (17), the subject's average estimate of his own ability, the suggested score (37.2), and the maximum score possible (50). Groups A–D are treated separately, in successive lines of the figure. The scale at the bottom is the 50-point scale of the literary acquaintance test. The mean aspiration-level is represented in each line by an X. Anchoring effects may have characteristic directions; these are shown by arrows.

In all groups the score 17 exerted an upward or positive anchoring effect, for even a small degree of literary acquaintance would lead the subject to expect a score higher than the mean chance-score. Similarly, the maximum score 50 exerted a downward or negative effect, because the likelihood of making even a few mistakes would lead him to expect a score below 50.

The mean aspiration-level of group A (26.95) implies that the subjects in this group, and by inference those in the other groups also, had low estimates of their own abilities; accordingly, a negative (i.e., downward) anchoring effect is shown for all four groups. The subjects in group A did tend to estimate their abilities correctly; the correlation between aspiration-level and test-score in this group was $+.523 \pm .105$. This correlation is fairly high, considering the fact that both the test and the statement of aspiration-level are probably unreliable, and that the correlation is in consequence reduced. Further, the mean score of group A was in fact low (23.77). These evidences of insight show that the subject's estimate of his ability could operate in determining his aspiration-level, and could even operate to place this level in approximately the correct position.

Acting in combination, the three anchoring effects shown in the figure place the mean aspiration-level for group A somewhat below the middle of the whole range of scores, 17–50. Group B was subject to these anchoring effects and another one in addition: the negative effect created by the suggestion that a *superior* group (of authors and literary critics) had made a certain average score (37.2). The subjects in group B very probably felt that their scores would lie below those of this group of experts. The result of an additional negative anchoring effect is a mean aspiration-level still lower than that of group A. The sugges-

[5] J. Volkmann, "The Anchoring of Absolute Scales" (abstract), *Psychol. Bull.*, 1936, XXXIII, 742 f.

[6] W. A. Hunt and J. Volkmann, "The Anchoring of an Affective Scale," *Am. J. Psychol.*, 1937, XLIX, 88–92.

tion of the average score of a *similar* group (students in psychology) probably tends to increase aspiration-levels which are considerably below this average score, and to decrease those which are considerably above it; hence the representation of two opposed anchoring effects for the suggested score (37.2) in the case of group C. The subjects who have low aspiration-levels may wonder whether they cannot approach the suggested average more closely; those who have high aspiration-levels may question whether they should so far exceed the average. The combination of the five effects, two positive and three negative, gives group C a mean aspiration-level slightly below the center of the range 17–50. Group D find in their suggestion a positive effect; they are likely to feel that they can do better than the (supposedly) inferior WPA group. The combination of two positive and two negative effects gives a mean aspiration-level near the center of the range 17–50.

It is entirely reasonable that anchoring effects should act in combination, since single anchoring points exert only a partial influence. It is not reasonable to suppose, however, that the various anchoring effects mentioned above are equally strong; nothing is known of the strengths of the anchoring effects considered separately, nor whether they combine in strict additive fashion or otherwise.

The standard-deviation of the aspiration-level is greatest for groups C and D, less for group A, and least for group B. The end-points 17 and 50 probably tend to reduce variability, and the means of groups C and D are farthest from these points. In addition, the means of C and D lie in the vicinity of anchoring effects of opposite tendency, positive and negative, a fact which may explain the greater variability of these groups.

In Experiment II the anchoring effects were apparently quite different. There were still the minimum and maximum scores (0 and 32), and probably a subjective estimate of ability, but the suggested scores of other groups had no appreciable effect. The subject's own previous scores provided the most effective anchoring. Why should they have done so? In the first place, what the subject has himself accomplished with labor is likely to have "ego-value"; it means more to him than does the verbally reported accomplishment of someone else. The subject accepts his own work with satisfaction if it seems to be of high grade; he may still accept it, under the protection of some rationalization, if it seems to be of low grade. In the second place, the subject's previous scores provide the most objective basis for predicting his future ones, and the subject will use this basis if he values objectivity. He will extrapolate from his information in order to make a prediction, as many of McGregor's subjects did.[7]

Sherif's experiments with autokinesis illustrate the difference between an *indeterminate* frame of reference and a *determinate* one.[8] In complete darkness the visual frame of reference is relatively indeterminate; the point of light is then free to wander, and its localization is open to the influence of suggestion. In a lighted room, however, the walls, floor, and solid objects provide a highly determinate frame of reference, within which stationary stimuli are regularly perceived as stationary. In our Experiment I, the frame of reference was relatively indeterminate; new information could exert a new anchoring effect. In Experiment II, the subject's knowledge of his scores made the frame much more determinate; new information was ineffective in establishing anchoring points.[9]

[7] D. M. McGregor, *op. cit.*, 200.

[8] M. Sherif, *op. cit.*, Ch. 6.

[9] The determination of a judgment seems to us to be analyzable into two phases. There is first the

There should be mentioned certain differences in procedure between Experiment I and Experiment II. The tasks were different; Experiment I required no special task, while Experiment II required 4 forms approximately equated and of some reliability. The test of "ability to solve problems" may have seemed more important to the subjects of Experiment II than the degree of "literary acquaintance" did to the subjects of Experiment I. This difference in subjective importance could hardly have produced the difference in results, however, for McGregor concluded that increased importance is conducive to increased ambiguity (indeterminacy).[10] There were also differences between the two experiments in respect of the form in which the added information was offered: for example, the subjects of groups B–D, Experiment I, were told that a certain group had made a certain absolute score; the subjects of Experiment II were told that a certain group had made a certain score relative to the subject's own score. It is difficult to evaluate this and like differences in procedure, but it is not probable that they account for the clearly contrasting results of the two experiments.

Further Problems

The present experiments, representing a limited investigation of the social components in the frame of reference surrounding the aspiration-level, leave unanswered many interesting questions. We are led to conclude, for instance, that before the level of aspiration has become too dependent upon direct experience with a task, knowledge of the performance of other groups may raise or lower it. But is the amount of the raising or lowering a function of the perceived difference in ability between the individual and these other groups? Our research leaves this point in question; for while we have dealt with groups which the subjects clearly regard as different from themselves, we have not attempted to measure the degree of this difference, nor to vary it. Again, is the effect of group-differences a phenomenon more prominent in our competitive culture than in noncompetitive ones? Would it be absent or greatly diminished in a society in which ego-values were otherwise developed? Further, would the effect be stronger if the individual had knowledge of the performance of another group which he felt to be not merely different from him (as in our experiment) but actually in strong competition with him? There is suggestive evidence from athletic contests, for example, that sheer rivalry with another group—whether or not that group is rated as inferior or superior—may exert a strong upward force on the level of aspiration.

It must be remembered also that this experiment tests only one of presumably many social influences bearing upon the individual's aspiration-level. The fact that, in Experiment II, knowledge about other groups was impotent in the face of detailed acquaintance with the task must not be interpreted to mean that

question as to what stimuli are effective in producing anchoring points in the frame of reference; here the familiar laws of attention and attitudinal selection play a major role. Secondly, there is the question, once the anchoring points exist, as to how labile they are and consequently how rigidly they confine the judgment. Can the judgment vary from moment to moment? Can a new anchoring point be easily intruded upon the frame of reference?

Sherif has used the terms "structured and unstructured stimulus situations." It seems to us, however, that structuredness applies not to stimulus situations but to the subjective frames of reference which they produce. Better is McGregor's term, "ambiguous and unambiguous stimulus situations." In the present paper we use such adjectives as "determinate" and "indeterminate" to apply to *frames of reference* whose anchoring points determine judgments with greater or less rigidity.

[10] D. M. McGregor, *op. cit.*, 192 f.

this would be true of all social influences. We cannot say what might have happened to the aspiration-level had the subjects suddenly been introduced to some device and informed that by means of this device other groups had been able to raise their performance. ("Hundreds have taken ten strokes off their golf scores by using my natural method of driving." . . . "This isn't going to be an ordinary strike; it's going to be a sit-down.") Nor do we know whether a sudden experience of success might not free the whole referential framework from over-determination by experience and open it to determination by suggestion. ("Nothing succeeds like success.") Finally, it ought to be determined whether, when a familiar task is perceptually reconstructed (e.g., insightfully or by new verbal identification) it may not act for the aspiration-level as if it were a new task with a labile frame of reference. The laws of identity in both perception and social observation suggest that this may be a feasible device for freeing aspiration-levels from constraint.

We believe that research on these and other similar problems will show the richness of the socially determined framework within which the individual commonly adjusts his aspirations.

SUMMARY

This investigation concerned the effect upon level of aspiration of one social determinant, knowledge of the performance of other groups. In the first experiment, such knowledge was furnished the subjects before they had formed a first-hand acquaintance with the task; under these conditions the aspiration-level was changed. In the second experiment knowledge of the performance of other groups was furnished only after considerable experience with the task; under these conditions, the aspiration-level was not changed. The difference in results is discussed in terms of the concept of frame of reference.

5.

VALUE AND NEED AS ORGANIZING FACTORS IN PERCEPTION

By Jerome S. Bruner and Cecile C. Goodman [1]

Throughout the history of modern psychology, until very recent times, perception has been treated as though the perceiver were a passive recording instrument of rather complex design. One might, in most experiments, describe him in much the same graphical terms as one uses to describe the latest piece of recording apparatus. Such psychology, practiced as it were *in vitro*, has fallen short of clarifying the nature of *perception* in everyday life much as did the old nerve-muscle psychophysiology fall short of explaining *behavior* in everyday life. Both have been monumentally useful—in their place. The names of Weber, Fechner, Wundt, Titchener, Hecht, and Crozier are safely ensconced in any respectable psychological hall of fame. But their work, like the work of the nerve-muscle men, is only a beginning.

For, as Professor Thurstone [1a] has put

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[1] The writers are greatly indebted to Pauline B. Hahn and Dr. Leo J. Postman for invaluable assistance and advice.

[1a] L. L. Thurstone, *A Factorial Study of Perception* (Chicago: University of Chicago Press, 1944).

it, "In these days when we insist so frequently on the interdependence of all aspects of personality, it would be difficult to maintain that any of these functions, such as perception, is isolated from the rest of the dynamical system that constitutes the person." The problem is, indeed, to understand how the process of perception is affected by other concurrent mental functions and how these functions in their turn are affected by the operation of perceptual processes. Given a dark room and a highly motivated subject, one has no difficulty in demonstrating Korte's Laws of phenomenal movement. Lead the subject from the dark room to the market place and then find out what it is he sees moving and under what conditions, and Korte's Laws, though still valid, describe the situation about as well as the Laws of Color Mixture describe one's feelings before an El Greco canvas.

The discrepancy between the dark room and the market place we have in the past found convenient to dismiss by invoking various *dei ex machina:* Attention, Apperception, *Unbewusster Schluss, Einstellung*, Preparatory Set, etc. Like the vengeful and unannounced step-brother from Australia in the poorer murder mysteries, they turn up at the crucial juncture to do the dirty work. Though such constructs are useful, perception itself must remain the primary focus. To shift attention away from it by invoking poorly understood intervening variables does little service. What we must study before invoking such variables are the variations perception itself undergoes when one is hungry, in love, in pain, or solving a problem. These variations are as much a part of the psychology of perception as Korte's Laws.

It is the contention of this paper that such perceptual phenomena are as scientifically measurable in terms of appropriate metrics as such more hallowed phenomena as flicker fusion, constancy, or tonal attributes. But let us pause first to construct a sketchy terminology. Let us, in what ensues, distinguish heuristically between two types of perceptual determinants. These we shall call *autochthonous* and *behavioral*. Under the former we group those properties of the nervous system, highly predictable, which account for phenomena like simple pair formation, closure, and contrast, or at another level, tonal masking, difference and summation tones, flicker fusion, paradoxical cold, and binaural beats. Given ideal "dark-room" conditions and no compelling distractions, the "average" organism responds to set physical stimuli in these relatively fixed ways. Autochthonous determinants, in brief, reflect directly the *characteristic* electrochemical properties of sensory end organs and nervous tissue.

Under the category of *behavioral* determinants we group those active, adaptive functions of the organism which lead to the governance and control of all higher-level functions, including perception: the laws of learning and motivation, such personality dynamics as repression, the operation of quasi-temperamental characteristics like introversion and extraversion, social needs and attitudes, and so on. Underlying these behavioral determinants, doubtless, are a host of physiological mechanisms. But we can hardly wait until we understand these before tackling experimentally the role of behavioral determinants in perception. The physiology of Weber's Law is still more or less obscure, yet the enunciation of it has been recognizably useful —even to the physiologist for whom it has been a challenge to discovery.

A paper of this kind cannot contain any extensive review of the literature on those perceptual dynamics which we have called *behavioral*. Yet it is necessary to pass rapidly over some of the notable facts and experiments which have forced us to draw certain distinctions and make bold claims about the mensurability of behavioral determi-

nants. First we have the facts of "sensory conditioning," a term first used by Cason.[2] Starting with the work of Perky in 1910,[3] it has been demonstrated repeatedly by Warner Brown,[4] Ellson,[5] Coffin,[6] and others that subjects can be conditioned to see and hear things in much the same way as they can be conditioned to perform such overt acts as knee jerking, eye blinking, or salivating. Pair a sound and a faint image frequently enough, fail to present the image, and the subject sees it anyway when the sound is presented. Any student of suggestion, whether or not he has perused Bird's exhaustive bibliography [7] of the literature on the subject, knows that. Not perception? Why not? The subject sees what he reports as vividly as he sees the phi-phenomenon.

Closely related are such experiments as those of Haggard and Rose,[8] Proshansky and Murphy,[9] and Schafer and Murphy [10] demonstrating the role of reward and punishment in altering perceptual organization. Haggard and Rose show that the extent of autokinetic movement can be altered by a system of rewards; Proshansky and Murphy that discriminable differences in the perception of lines and weights can be similarly altered; Schafer and Murphy that, given an ambiguous figure-ground configuration, what is seen as figure and what as ground can be altered by a system of reward and punishment.

Another group of researches has demonstrated that what is seen in a complex configuration is not determined solely by the laws of gestalt, but by practice. Among experimenters who have confirmed this generalization are Henle,[11] Fehrer,[12] Braly,[13] Leeper,[14] and Djang.[15] Closely related are the experiments of Thouless [16] showing that phenomenal constancy or, as he calls it, "regression to the real object," reflects the habits of the individual. Art students, for example, see the "real" object—its color, shape, and brightness—less readily, show greater phenomenal constancy, than matched individuals with no art train-

[2] H. Cason, "Sensory Conditioning," *J. Exper. Psychol.*, 1936, XIX, 572–591.

[3] C. W. Perky, "An Experimental Study of Imagination," *Am. J. Psychol.*, 1910, XXI, 422–452.

[4] W. Brown, "Individual and Sex Differences in Suggestibility," *Univ. Calif. Publ. Psychol.*, 1916, II, 291–430.

[5] D. G. Ellson, "Hallucinations Produced by Sensory Conditioning," *J. Exper. Psychol.*, 1941, XXVIII, 1–20.

[6] T. E. Coffin, "Some Conditions of Suggestion and Suggestibility: A Study of Some Attitudinal and Situational Factors Influencing the Process of Suggestion," *Psychol. Monogr.*, No. 241, 1941.

[7] C. Bird, "Suggestion and Suggestibility: A Bibliography," *Psychol. Bull.*, 1939, XXXVI, 264–283.

[8] E. R. Haggard and G. J. Rose, "Some Effects of Mental Set and Active Participation in the Conditioning of the Autokinetic Phenomenon," *J. Exper. Psychol.*, 1944, XXXIV, 45–59.

[9] H. Proshansky and G. Murphy, "The Effects of Reward and Punishment on Perception," *J. Psychol.*, 1942, XIII, 295–305.

[10] R. Shafer and G. Murphy, "The Role of Autism in a Visual Figure-Ground Relationship," *J. Exper. Psychol.*, 1943, XXXII, 335–343.

[11] M. Henle, "An Experimental Investigation of Past Experience as a Determinant of Visual Form Perception," *J. Exper. Psychol.*, 1942, XXX, 1–21.

[12] E. V. Fehrer, "An Investigation of the Learning of Visually Perceived Forms," *Am. J. Psychol.*, 1935, XLVII, 187–221.

[13] K. W. Braly, "The Influence of Past Experience in Visual Perception," *J. Exper. Psychol.*, 1933, XVI, 613–643.

[14] R. Leeper, "A Study of a Neglected Portion of the Field of Learning—The Development of Sensory Organization," *J. Genet. Psychol.*, 1935, XLVI, 41–75.

[15] S. Djang, "The Role of Past Experience in the Visual Apprehension of Masked Forms," *J. Exper. Psychol.*, 1937, XX, 29–59.

[16] R. H. Thouless, "Individual Differences in Phenomenal Regression," *Brit. J. Psychol.*, 1932, XXII, 216–241.

ing. Indeed, v. Fieandt [17] has shown that the appearance of a surface as light gray in shadow or dark gray in light can be controlled by simple Pavlovian conditioning, the CS being a sound or a button in the visual field. And all of us are fond of citing the work of Haddon in the Torres Straits [18] demonstrating that these primitive island spear-fishers are, most likely as a result of their experience with spears, considerably less susceptible to the Müller-Lyer illusion.

Sherif's classic experiments [19] on social factors are too well known to need any elucidation here. Demonstrating further the role of social factors in perception are the experiments of Zuk-Kardos [20] and Fazil,[21] students of Egon Brunswik, who showed that the subjective number equation for matching a standard cluster of stamps or coins to a variable depended in part upon the value of the coins or stamps in the standard and variable clusters. With many refinements and extensions, these experiments have been repeated in America by Ansbacher.[22]

One can go on to cite many more experiments, but in a very brief summary review that would be impossible. Let us conclude then with two pieces of research, one French, the other Swiss, indicating the possible connection of general personality traits and perception. Binet [23] and Meili and Tobler [24] have suggested that the child is more susceptible to "illusions," more a prey to those organizing factors which, as adults, we call distorting. Binet has shown that, as the child grows older, his susceptibility to the Müller-Lyer illusion decreases. The contribution of Meili and Tobler has been to show that, as the child ages, his threshold for seeing stroboscopic movement becomes higher. Whether from these two experiments, plus such incidental observations as Piaget's [25] to the effect that the child sees the moon as following him, we can draw any conclusions about increasing "perceptual realism" as a function of age is open to question. Yet the way has been opened to those who wish to investigate this area further.

So much for prior research. There exists a fruitful if slim body of literature on behavioral factors in perception. Where does one go from here? Two approaches are open. Armed with our slender reed of empirical proof, we can set about the task of systematization, indulging in S–R's, topology, or psychoanalytic constructs to suit the taste. There is already one brilliant theoretical structure to account for many of the facts we have been discussing, presented in Egon Brunswik's *Wahrnehmung und Gegenstandswelt*.[26] Or we may go on to the empirical demonstration of general hypotheses concerning the relation of behavior dynamics and perception. Both

[17] K. v. Fieandt, "A New Constancy Phenomenon in Color Perception," *Ann. Acad. Sci.* (Finland), 1938, XLI (Summary in English). See also "Dressurversuche an der Farbenwahrnehmung," *Arch. ges. Psychol.*, 1936, XCVI, 467–495.

[18] W. H. R. Rivers, *Report of the Cambridge Anthropological Expedition to the Torres Straits* (Cambridge: Cambridge University Press, 1901), Vol. 2.

[19] M. Sherif, "A Study of Some Social Factors in Perception," *Arch. Psychol.*, No. 187, 1935.

[20] I. Zuk-Kardos, "Perzeptionale Zugänglichkeit von Anzahl, Fläche, und Wert unter verschiedenen Umstandskonstellationen," cited by Ansbacher.[22]

[21] A. Fazil, "Münzenversuche über Anzahl-, Grossen-, und Wertwahrnehmung," cited by Ansbacher.[22]

[22] H. Ansbacher, "Perception of Number as Affected by the Monetary Value of the Objects," *Arch. Psychol.*, No. 215, 1937.

[23] A. Binet, "La Mesure des Illusions Visuelles chez l'Enfant," *Rev. Philos.*, 1895, XL, 11–25.

[24] R. Meili and C. Tobler, "Les Mouvements Stroboscopiques chez les Enfants," *Arch. de Psychol.*, 1931, XXIII, 131–156.

[25] J. Piaget, *Language and Thought of the Child* (New York: Harcourt, Brace & Co., Inc.), 1926.

[26] E. Brunswik, *Wahrnehmung und Gegenstandswelt* (Vienna, 1934).

are indispensable activities. The present paper, however, is concerned mainly with empirical hypotheses. But certain minimum systematic assumptions must first be made clear to bring these hypotheses into clear focus.

The organism exists in a world of more or less ambiguously organized sensory stimulation. What the organism sees, what is *actually there* perceptually represents some sort of compromise between what is presented by autochthonous processes and what is selected by behavioral ones. Such selection, we know, is determined not only by learning, as already indicated, but also by motivational factors such as have been indicated for hunger by Sanford [27, 28] and Levine, Chein, and Murphy.[29] The selective process in perception we shall refer to as a *perceptual hypothesis*, using the term, with Krech,[30] to denote a systematic response tendency. Such an hypothesis may be set into operation by a need; by the requirements of learning a task, or by any internally or externally imposed demands on the organism. If a given perceptual hypothesis is rewarded by leading to food, water, love, fame, or what not, it will become *fixated;* and the experimental literature, notably the work of Ellson [31] and Leeper,[32] indicates that the fixation of "sensory conditioning" is very resistant to extinction. As fixation takes place, the perceptual hypothesis grows stronger not only in the sense of growing more frequent in the presence of certain types of stimulation, but also more perceptually *accentuated*. Perceptual objects which are habitually selected become more vivid, have greater clarity or greater brightness or greater apparent size.

Two other systematic matters must concern us before we turn to the experiments. One has to do with perceptual *compromise*, the other with perceptual *equivocality*. Frequently, alternative hypotheses operate: a quick glimpse of a man in gray on a European battlefield may leave us in doubt as to whether he is a civilian or a Wehrmacht infantryman. Almost inevitably one or the other hypothesis prevails, and the field is perceived as either one or the other. But in spite of the dominance of a single hypothesis in perception, *compromise* also occurs. Using Ansbacher's experiments [33] as an example, a group of small paper squares is seen both in terms of number and in terms of value as stamps. What results, if you will, is a perception of "number-value." We know precious little about such perceptual compromises, although we shall be discussing experiments demonstrating their operation.

As for *equivocality*, or ambiguity in the perceptual field, it has generally been supposed that the greater the equivocality the greater the chance for behavioral factors in perception to operate, all other things being equal. Sherif [34] chose the autokinetic phenomenon to work with for this reason. Proshansky and Murphy [35] worked close to threshold illumination with similar intent. Within broad

[27] R. N. Sanford, "The Effect of Abstinence from Food upon Imaginal Processes; A Preliminary Experiment," *J. Psychol.*, 1936, II, 129–236.

[28] R. N. Sanford, "The Effect of Abstinence from Food upon Imaginal Processes; A Further Experiment," *J. Psychol.*, 1937, III, 145–159.

[29] R. Levine, I. Chein, and G. Murphy, "The Relation of the Intensity of a Need to the Amount of Perceptual Distortion: A Preliminary Report," *J. Psychol.*, 1942, XIII, 283–293.

[30] I. Krechevsky, "'Hypothesis' versus 'Chance' in the Presolution Period in Sensory Discrimination Learning," *Univ. Calif. Publ. Psychol.*, 1932, VI, 27–44.

[31] D. G. Ellson, "Experimental Extinction of an Hallucination Produced by Sensory Conditioning," *J. Exper. Psychol.*, 1941, XXVIII, 350–361.

[32] R. Leeper, *op. cit.*

[33] H. Ansbacher, *op. cit.*

[34] M. Sherif, *op. cit.*

[35] H. Proshansky and G. Murphy, *op. cit.*

limits, which we shall discuss, the generalization is valid, in so far as equivocality reduces the organizing capacity of autochthonous perceptual determinants. How important this generalization is we, who think so exclusively in terms of the well-controlled dark-room experiment, often forget. For in everyday life, perception is, by and large, a series of quick looks, glances, inattentive listenings, furtive touches. Save for what is at the very focus of interested attention, the world of sense is more equivocal than our textbook writers seem to think.

Empirical Hypotheses

We may turn now to the experiments with which this paper is primarily concerned. Three general hypotheses, growing out of the systematic principles just presented, are under consideration.

1. *The greater the social value of an object, the more will it be susceptible to organization by behavioral determinants.* It will be *selected* perceptually from among alternative perceptual objects, will become *fixated* as a perceptual response tendency, and will become perceptually *accentuated.*

2. *The greater the individual need for a socially valued object, the more marked will be the operation of behavioral determinants.*

3. *Perceptual equivocality will facilitate the operation of behavioral determinants only in so far as equivocality reduces the operation of autochthonous determinants without reducing the effectiveness of behavioral determinants.*

In the experiments reported here, only one aspect of behavioral determination will be treated, what we have called *accentuation*—the tendency for sought after perceptual objects to become more vivid. Perceptual selectivity and fixation have already been demonstrated in other experiments, though they remain poorly systematized. For purposes of economy of exposition we omit consideration of them here, though they constitute important variables in the broader research project of which the present experiments are a part.

The Subjects and the Apparatus

The subjects were 30 ten-year-old children of normal intelligence, divisible according to certain characteristics to be discussed shortly into three groups, two experimental and one control. The apparatus consisted of a rectangular wooden box (9″ × 9″ × 18″) at one end of which was a 5″ square ground-glass screen and a knob at its lower right-hand corner. At the center of the ground-glass screen was an almost circular patch of light (16.2 app. ft. cdls.) cast upon the back of the screen by a 60-watt incandescent light shining through an iris diaphragm which could be varied in diameter from $\frac{1}{8}$″ to 2″ by turning the knob on the front end of the box. All that was visible to the subject was the box with its ground-glass screen and the circle of light whose diameter he could change by turning the knob. The circle was not truly round, containing the familiar nine elliptoid sides found in the Bausch & Lomb iris diaphragm. It was so close to round, however, that subjects had no difficulty making the subjective equations required of them.

Subjects individually sat in a chair in front of the screen on the box with the light circle slightly below eye level. The box rested on a table behind which sat the experimenter. The child was told that this was a game, and that he was to make the circle of light on the box the same size as various objects he was shown or told about. Before beginning judgments, each child, with no urging, was encouraged to see how large and small the circle of light could be made.

The two experimental groups received the same treatment. Two series were run for these groups, comprising 20 of the children in all. First the child was asked to estimate the sizes of coins from a penny through a half dollar from memory. He did the first in ascending order

of value, then in descending order, always making two judgments for each coin named, one from the open, the other from the closed position of the iris diaphragm. Four judgments were made for each coin by each child. No inkling was given the child as to how "close" he had come.

Following the memory series, and using the same order of presentation, a similar series was then run with coins present. Coins, individually, were held close to the center of the palm of the left hand, at a level with the light circle and six inches to its left. The subjects took as much time as suited them.

A control group of ten subjects followed a procedure identical with the one just described. Instead of coins, medium gray cardboard discs of identical size were employed. No mention of money was made to this group.

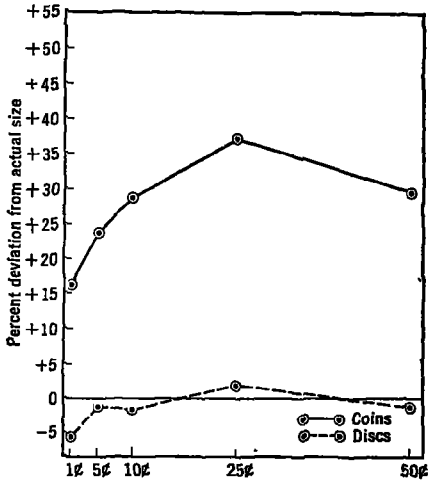


FIG. 1. Size estimations of coins and discs of same size made by ten-year-olds (method of average error).

RESULTS

Let us compare the difference between judgments of size of coins and identically sized cardboard discs. Two things can be noted in Figure 1, which presents judgments of experimentals and controls with coins present. First off, coins, socially valued objects, are judged larger in size than gray discs. Secondly, the greater the value of the coin, the greater is the deviation of *apparent* size from *actual* size. The exception to this generalization is the half dollar, overestimation of which falls off below that of a quarter. By way of the sheerest guess one might explain this reversal of the curve in terms of the lesser reality-value of a half dollar as compared with a quarter for the ten-year-old. A half dollar at that age is, so to speak, almost too valuable to be real! More likely there is some simple autochthonous reason for the reversal. Yet, no such reversal is found in curves plotted for adults.

The difference between experimentals and controls is, of course, highly significant. The variance in overestimation in the experimental groups introduced by using coins of different value is similarly significant. Our results, as handled by the Postman-Bruner [36] adaptation of the analysis of variance to psychophysical data, show that variances due to coin value and due to using discs *versus* coins yield F-scores convertible to *P*-values of less than .01.[37]

[36] L. Postman and J. S. Bruner, "The Reliability of Constant Errors in Psychophysical Measurement," *J. Psychol.*, 1946, XXI, 293–299.

[37] *P*-values at the .01 level were also found for constant errors introduced by ascending and descending value orders and for judgments made from the open and closed positions of the diaphragm. Since these parameters were controlled and balanced in the judgment data for the groups discussed, nothing further need be said of them here. They will be discussed in another place (J. S. Bruner and L. Postman, *Perception and the Dynamics of Behavior*. In preparation). Analysis of variance was carried out both with percentage scores representing deviation of individual judgments from actual size and with raw scores. Necessary corrections suggested by Snedecor (G. W. Snedecor, *Statistical Methods Applied to Experiments in Agriculture and Biology*, 3d ed.; Ames, Iowa: Iowa State College Press, 1940) were used in the former method. The values presented here are applicable to both raw and percentage scores.

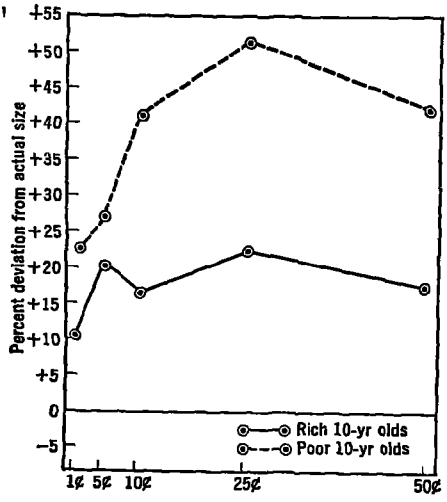


FIG. 2. Size estimations of coins made by well-to-do and poor ten-year-olds (method of average error).

So much for the first hypothesis, that socially valued objects are susceptible to behavioral determinants in proportion to their value. Consider now the second hypothesis, that the greater the subjective need for a socially valued object, the greater will be the role of behavioral determinants of perception. In the second experimental variation, the experimental group was divided into two component groups. One we call the *rich* group, the other the *poor* group, each comprising ten subjects. Well-to-do subjects were drawn from a progressive school in the Boston area, catering to the sons and daughters of prosperous business and professional people. The poor subjects came from a settlement house in one of Boston's slum areas. The reasonable assumption is made that poor children have a greater subjective need for money than rich ones. When the figures presented in Figure 1 are broken down into scores for rich and poor groups, a striking difference will be noted (Fig. 2). The poor group overestimates the size of coins considerably more than does the rich. Again there are some irregularities in the curves. The drop-off for the half dollar we have already sought to explain. As for the dip in the rich group's curve at a dime, the explanation is problematical. All curves which we have plotted for adults—and by now we have collected more than two thousand judgments [38]—show this dip. Perhaps it is due to the discrepancy between the relative size and value of the dime, perhaps to some inherent characteristic of the coin itself.[39]

The difference between rich and poor is highly significant, analysis of variance showing that the source of variance

TABLE 1

PERCENTAGE DEVIATION FROM ACTUAL SIZE OF JUDGMENTS OF COINS AND DISCS UNDER VARIOUS CONDITIONS

Group and Condition	Penny	Nickel	Dime	Quarter	Half-dollar	Number judgments per coin
20 *O*'s coin present . .	16.5	23.9	29.1	37.0	29.6	80
20 *O*'s coin absent . .	7.2	19.6	11.6	32.8	35.8	80
10 *O*'s disc present . .	−5.4	−.9	−1.5	1.8	−.8	40
10 rich *O*'s coin present	10.3	20.4	16.3	22.4	17.4	40
10 rich *O*'s coin absent .	2.6	19.8	7.8	28.3	34.7	40
10 poor *O*'s coin present	22.7	27.3	41.8	51.6	42.0	40
10 poor *O*'s coin absent	11.8	19.4	15.4	37.3	36.9	40

[38] J. S. Bruner and L. Postman, *Perception and the Dynamics of Behavior*, in preparation.
[39] If the reader is a smoker, let him ask himself whether a dime will cover the hump on the camel

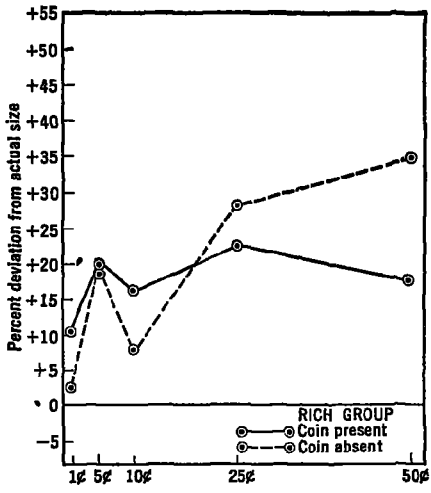


FIG. 3. Size estimations of coins with coins present and from memory by well-to-do ten-year-olds (method of average error).

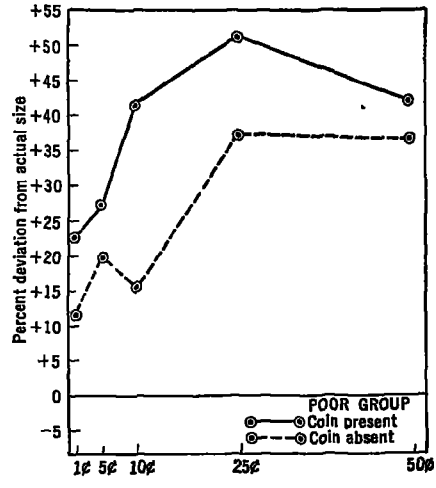


FIG. 4. Size estimations of coins with coins present and from memory by poor ten-year-olds (method of average error).

is significant beyond the *P* level of .01. Our second hypothesis cannot, then, be rejected. It is notable too that the interaction between the parameters of economic status and value of coins yields an F-score convertible to a *P*-value between .05 and .01 which leads to a secondary hypothesis: given perceptual objects of the same class but varying in value, the effect of need for that class of objects will be to accentuate the most valuable objects most, the least valuable least, etc.

What of ambiguity or perceptual equivocality? We have arbitrarily assumed that a situation in which one is judging size from memory is more "equivocal" than one in which the object being judged is in clear view six inches away from the test patch. The assumption is open to serious question, but let us examine what follows from it experimentally. Compare first the judgments of the rich group under conditions like those described: with coin present as compared with coin as a mere memory image. The curves are in Figure 3. It would seem that, for all values below a quarter, equivocality has the effect of making judgments conform more to actual size, aiding, in other words, the operation of autochthonous determinants. For values over a quarter, equivocality favors behavioral factors, making apparent size diverge still more from actual size. For the rich group, with coin *present*, a half dollar is overjudged by 17.4 percent; with coin *absent*, by 34.7 percent.

This finding is difficult to interpret by itself. Consider now Figure 4, showing the discrepancy in "absent" and "present" judgments for the poor group. Here there is no crossing. Equivocality seems, in this group, to have the exclusive effect of bringing judgments down toward actual size. Equivocality even brings out the "dime dip" in the poor group. How account for the difference? Why does equivocality liberate behavioral determinants among the rich children for higher values, and depress these factors for poor

which appears as a trademark on Camel cigarettes. Hold the two six inches apart. In spite of the apparently small size of the coin, it will cover the camel's hump with margin to spare.

children? We can offer nothing but a guess, one which needs confirmation by further research. Some years ago, Oeser[40] reported that in his study of children in Dundee he found the fantasy life of the children of the unemployed strikingly choked off. Asked what they would like to be when grown, normal children of employed parents gave such glamorous replies as cowboy or film star, while children of the unemployed named the rather lowly occupations traditionally followed by members of their class. In the figures just presented, it is our contention that we are witnessing the same phenomenon. In the case of the poor children, judging coin size from memory, a weakened fantasy is substituted for the compelling presence of a valued coin, while among rich children equivocality has the effect of liberating strong and active fantasy.[41]

Are any other explanations available to account for the shape of the curves we have been concerned with here? Weber's Law would predict in all cases a straight line plot parallel to the axis representing actual size. DL should be a constant fraction of the stimulus, whatever its magnitude. If one were to treat the slope of the curves by reference to Hollingworth's central-tendency effect,[42] one should find a negative rather than a positive slope. All values smaller than the center of the series should appear larger in size; all larger than the center of the series, smaller. Assuming that the Hollingworth effect is mediated by autochthonous factors, then it represents one more autochthonous factor outweighed by the behavioral determinants discussed in the course of this paper.

In conclusion, only one point need be reiterated. For too long now, perception has been virtually the exclusive domain of the Experimental psychologists with a capital *E*. If we are to reach an understanding of the way in which perception works in everyday life, we social psychologists and students of personality will have to join with the experimental psychologists and reexplore much of this ancient field of perception whose laws for too long have been taken for granted.

6.

THE LEARNING AND FORGETTING OF CONTROVERSIAL MATERIAL

By Jerome M. Levine and Gardner Murphy

With the recognition that such functions as perception and learning are not determined by cognitive factors alone and that the individual enters into a perceiving or learning situation as a complete individual with his own needs, desires, values, with his own frame of reference, it became necessary to transcend the methods of Ebbinghaus in order to develop a valid social psychology.

The concept of "frame of reference," as discussed by Sherif implies no "inde-

From *Journal of Abnormal and Social Psychology*, 1943, XXXVIII, 507–517. Reprinted by permission of the authors and the American Psychological Association, Inc.

[40] O. A. Oeser, personal communication, 1937.

[41] The difference between rich and poor children in their size judgments of "absent" and "present" coins as here discussed is statistically significant. The interaction variance for these two parameters (economic status and presence-absence of coins) is at the .01 level of significance.

[42] H. L. Hollingworth, "The Inaccuracy of Movement," *Arch. Psychology*, No. 13, 1909.

pendent agent intruding into every psychological process as an outsider."[1] He shows that the frame of reference expresses the functional relationships, the functional interdependence, of many describable factors appearing in a concrete situation. The concept, then, introduces us to the field relationships of perceiving and learning.

That such a frame does have an appreciable effect in dominating or modifying a person's experience has been amply demonstrated qualitatively by Bartlett, who has indicated the relationships between the autisms of an individual and those factors in a given situation selected for perception and recall and demonstrated that meaningful prose material could be used to study these processes.[2] Few of the later studies of the effect of frame of reference on learning and recall have been concerned with the process of learning when that learning involves more than a single fixation; and, though such studies have been interested in immediate recall and delayed recall, rarely have more than two points been taken in the definition of a forgetting curve. An investigation by K. B. Clark did, however, analyze the forgetting curve more adequately.[3] Clark presented to high-school students of both sexes a passage representing a male-female conflict, in which the female was represented as superior; he found, throughout the curve of forgetting over a four-week period, differences in the quantity and quality of recall in favor of the female group which could not be attributed to the superiority of verbal memory usually found in females. "In general it may be stated that set (frame of reference) at the time of perception has a significant effect upon the gross quantitative aspects of the recall of the same meaningful prose material."

Similarly, W. S. Watson and G. W. Hartmann studied the ability of theistic and atheistic students to recall material which supported or denied the validity of their position.[4] Although most of the differences were not statistically significant, the authors state that their results "consistently buttress these conclusions, i.e., that material which supported the subjects' attitudinal frame was retained better than material which opposed it."

A. L. Edwards has reported corroborative data which prove even more interesting.[5] A ten-minute speech was read to a group of college students, one third of whom were pro-New Deal, one third neutral, and one third anti-New Deal. His results tended to suggest that the hypothesis of autistic perception was valid. After 21 days there was a "consistent but statistically unreliable tendency for the relative amount forgotten to be related to the degree of conflict between the material and the frame of reference."

The Present Problem

Our investigation was approached with emphasis on quantitative conceptions. We were interested in extending the learning period, as well as the curve of forgetting, over several weeks to note the form of the learning curve under conditions of attitudinal bias. Is material congruent with our social attitudes assimilated in such fashion as to yield a different shape of curve from that which appears when the material conflicts with

[1] M. Sherif, *The Psychology of Social Norms* (New York: Harper & Brothers, 1936).

[2] F. C. Bartlett, *Remembering* (Cambridge, England: Cambridge University Press, 1932).

[3] K. B. Clark, "Some Factors Influencing the Remembering of Prose Material," *Arch. Psychol.*, No. 253, 1940.

[4] W. S. Watson and G. W. Hartmann, "The Rigidity of a Basic Attitudinal Frame," *J. Abnor: & Soc. Psychol.*, 1939, XXXIV, 314–335.

[5] A. L. Edwards, "Political Frames of Reference as a Factor Influencing Recognition," *J. Abnor. & Soc. Psychol.*, 1941, XXXVI, 34–61.

one's bias? If the effect of bias appears at the beginning, is the same relative degree of superiority maintained between the groups during the learning period, or does the superiority increase, or decrease? Similarly, we wished to extend the forgetting period, and ask the same questions. Is there a point in the learning process when, despite opposite frames, the amount learned will be the same? What are the time-dynamics of the learning and forgetting process in a situation such as we are testing? These are the questions we sought to answer.

The Experiment

The learning material selected for investigation dealt with the Soviet Union. It was felt that, despite the fact that the USSR is now (1941) allied with Britain and the United States, the Soviet Union provided a topic which was vital and which had meaning at the present time. Further, attitude toward the USSR had achieved a certain degree of stability; military affairs would not seriously change the situation during the course of the experiment. Such relative stability was lacking in other vital topics.

Subjects. Two small homogeneous groups of City College students were used, five in each group. One group was pro-Communist, the other anti-Communist. Both groups felt strongly about their beliefs. The subjects were chosen on the basis of their reputations. At least, the pro-Communist group was the type to which one gives a questionnaire to validate communist-differentiating items. The experimenter was personally acquainted with each subject before the experiment was planned, or made his acquaintance before the subject knew he was to be asked to serve in the study. The age range of each group was from 19 to 22.

Both groups were first tested on a neutral passage. As far as memory is concerned the ten subjects turned out to be very much alike. The variation within the two groups was very slight and the differences between the groups insignificant.

Material. Two prose passages were chosen. One was excitedly anti-Communist, the other more moderately pro-Communist (see Appendix). Since the relative difficulty of the paragraphs differed and since the affective tone differed in degree, results on the two paragraphs cannot be meaningfully compared.

Procedure. All sessions were private, with only the subject and the experimenter present. The subjects were given these instructions: "Read over the paragraph twice at your normal reading rate." After the paragraph was read, 15 minutes passed before the first recall. During the 15 minutes the experimenter and the subject chatted about topics not concerned with the experiment. Then the subject was told: "Reproduce as accurately as possible the paragraph which was presented to you. Make an effort to have your reproduction as accurate and as nearly identical with the original paragraph as you possibly can. Be sure to have your reproduction not only accurate but as complete as the original paragraph."

After several minutes this entire procedure was repeated with the second paragraph. Three members of each group had the pro-Communist selection first, while the other two had the anti-Communist selection first. This was to minimize effects due to position.

This procedure was followed at weekly intervals for four weeks. Then, at weekly intervals for five weeks, memory of the selection was tested without submitting the paragraph to the subject. The first part is termed the "learning period," the second, the "forgetting period."

No effort was made to conceal the nature of the experiment, though it was never explicitly stated by either experimenter or subject.

Analysis. The paragraph was analyzed by the same method used by Clark. The

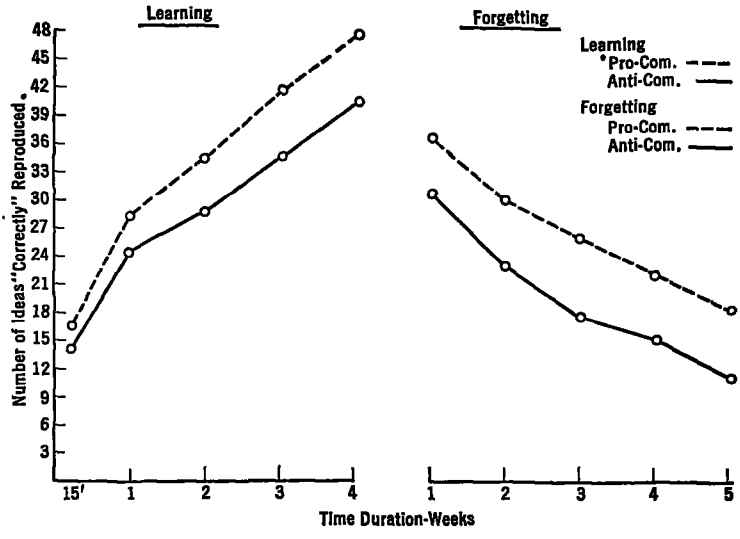


FIG. 1. Learning and forgetting curves for "correct" responses for pro-Communist and anti-Communist groups of the pro-Soviet Union selection.

TABLE 1

AVERAGE NUMBER OF IDEAS "CORRECTLY" REPRODUCED ON THE PRO-SOVIET UNION SELECTION FOR BOTH GROUPS

Group	Learning					Forgetting				
	15′	1 Wk.	2 Wk.	3 Wk.	4 Wk.	1 Wk.	2 Wk.	3 Wk.	4 Wk.	5 Wk.
Pro-Communist	16.8	28.4	34.8	42.0	48.0	37	30.6	26.4	22.6	18.8
Anti-Communist	14.2	24.4	29.0	35.0	41.0	31	23.4	18.0	15.4	11.4
Diff.	2.6	4.0	5.8	7.0	7.0	6	7.2	8.4	7.2	7.4
CR	2.8	2.84	2.9	3.3	3.3	3.2	3.31	3.54	3.5	3.53

paragraphs were divided into idea-groups. The subjects' recall papers were rated in this manner:

1. Those idea-groups which were reproduced in the exact words or in almost the exact words, of the selection, were graded "correct."
2. Those whose ideas remained the same, but whose words were different, were graded "changed."
3. Those definitely in error were graded "incorrect."
4. Ideas were classified "omitted" if no less than four of one group and no more than one of the other recalled them.

RESULTS

The results will be given (*a*) for the pro-Soviet selection, (*b*) for the anti-Soviet selection, (*c*) for the two selections combined. Student's t for small samples was used to determine statistical significance of the critical ratios.

$$t = \frac{M_1 - M_2}{\sigma_{M_1 - M_2}}.$$

Degrees of freedom (df or n) $= n_1 + n_2 - 2$

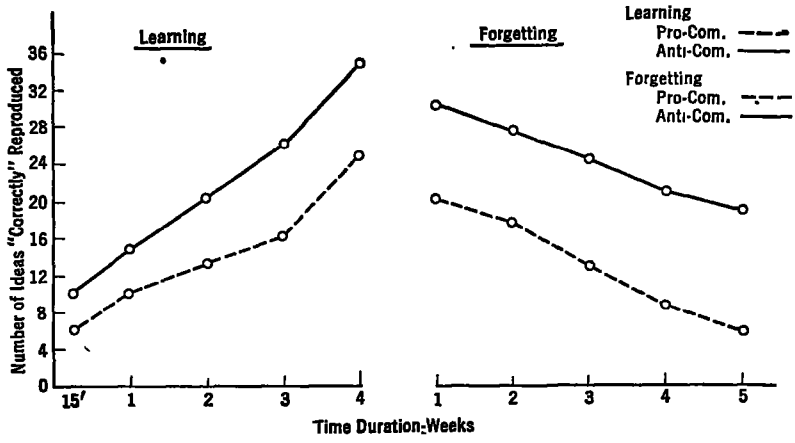


FIG. 2. Learning and forgetting curves for "correct" responses for pro-Communist and anti-Communist groups of the anti-Soviet Union selection.

TABLE 2

AVERAGE NUMBER OF IDEAS "CORRECTLY" REPRODUCED ON THE ANTI-SOVIET UNION SELECTION FOR BOTH GROUPS

Group	Learning					Forgetting				
	15′	1 Wk.	2 Wk.	3 Wk.	4 Wk.	1 Wk.	2 Wk.	3 Wk.	4 Wk.	5 Wk.
Pro-Communist	6.2	10.0	13.2	16.0	24.6	20	17.6	12.8	8.6	5.8
Anti-Communist	10.0	14.8	20.2	26.0	34.4	30	27.2	24.0	20.6	18.6
Diff.	3.8	4.8	7.0	10.0	9.8	10	9.6	11.2	12.0	12.8
CR	3.1	3.3	3.5	3.6	3.9	4.0	3.8	4.2	4.6	4.62

Thus, according to Fisher's table of t values (p. 177), for $df = 8$:[6]

t	Probability of Occurring by Chance
1.860	.1
2.306	.05
2.896	.02
3.355	.01

(*a*) Table 1 and Figure 1 indicate, as we should expect, the superiority of the pro-Communist group on the pro-Soviet selection. Using .01 as the criterion for statistical significance, we see that during the "learning period" the differences more and more approach such significance, never actually reaching it, however. In the "forgetting period" the differences become significant at the end of the third week and remain so at the fourth and fifth weeks. The fact that the other differences are not significant at the .01 level may be due to at least two causes: the very small groups may make for a relatively large sigma; and, as suggested by Edwards, the degree of conflict between material and attitude is vital. This may have been material that did not force a sharp enough differentiation between the groups. Table 1 shows, however, that the differences between the means increase throughout the "learn-

[6] R. A. Fisher, *Statistical Methods for Research Workers* (London: Oliver & Boyd, 1938).

ing period," indicating not only that early superiority is maintained, but that the superiority is being increased. In the "forgetting period" the same tendency appears. The increasing superiority in the learning period may in fact be due to selective forgetting. We assume that at the beginning of the first session both groups are equal in having no knowledge of the selection. At the end of this session the pro-Communistic group has the advantage. Since the anti-Communistic group, forgets more than does the pro-group this advantage is continually being built up, being greater at the beginning of each new session.

(*b*) Table 2 and Figure 2 indicate the marked superiority of the anti-Communist group on the anti-Soviet selection. All *t*'s except that of the first learning session are significant at the .01 level. The tendencies noted in connection with the previous selection are more marked here. The material here is such that it forces the cleavage which we anticipated in setting up our groups.

There appears to be more active agreement and disagreement with this paragraph than with the preceding one. Again the differences between the two groups are seen to increase in the learning period. The explanation, as the writers see it, remains the same. In the forgetting period, the increase in the differences is more marked than in the case of the preceding selection.

How do the curves for the two selections compare?

Learning. In the first selection we find greatest gain taking place during the first week, in the second during the last week. In general, we might characterize the curves of learning in Figure 1 as negatively accelerated, those in Figure 2 as positively accelerated. If any general statements can be made from the results of such small groups, we can say that we see the effect of difference in material. We do find, however, the same tendency of the two curves to spread farther apart.

Forgetting. The trend to separate appears in both graphs. The greatest single loss takes place in the first week, with the exception of that shown by the pro-Communist group on the anti-Soviet selection. Here the greatest drop took place during the third week.

Discussion

Have we secured curves of general validity for all learning and forgetting of controversial material? If field theory is sound, and the writers believe it is essentially so, we should not expect the curves developed in this study to hold for all subjects and all materials. The particular attitude being studied; the number and kind of subjects; their motivation; the difficulty of the material; its affective tone; the degree of conflict between the material and the attitude; the external testing situation, which includes the relations of the experimenter and the subjects; changes in the broader field from which the attitude stems—these are some of the variables that would seem to affect the way in which material which supports or contradicts our social attitudes would be learned and forgotten. Indeed, under the same testing conditions, with the same subjects, we got somewhat different curves on the two selections.

Must we suppose, then, that we can get no general curves which an hypothesis such as ours might seek, that we shall confront completely new conditions for each situation? The question cannot be answered simply, yes or no. If the basic situation is the same, we should expect basically the same general type of curve. But all the factors which we have mentioned above, and which possibly influence our results, cannot be the same in each different situation. Changes then would depend on the structure of the conditions. We cannot expect all people to behave as a group of college students behaved here. What if the individuals involved were not selected in the same manner? And is it sufficient to speak of

"controversial" material? Suppose the material to be in one instance merely disagreeable, but in another instance of such a kind as to threaten our whole conception of ourselves and of our world, so that there is deep ego involvement. We noted above how our different paragraphs brought different results.

What, then, on the basis of this study (leaving aside for the moment its inadequacies), are we prepared to say concerning the questions we asked earlier in the paper? Under the conditions of this experiment we noted that there were significant differences in the amount learned, and in the amount forgotten by our different groups. What is the next step? If the question as we have raised it is of importance, then other studies, with other subjects, with other material, with other conditions, must be undertaken. It may be that the problem needs to be attacked in a different manner, not merely making corrections in the technique used herein, but adopting a different conception of the role of time. It may be necessary to have subjects taking questionnaires, or some other form of attitude schedule, throughout the learning and forgetting periods—questionnaires which will seek the same information each time, but so worded that it retains interest and meaning for the subjects. For "time" alone does not cause the forgetting—and postulating a stable frame of reference during the entire experiment may not be appropriate.

A more important question is to ask what the individual will do with material which does not so obviously conflict with his autisms, yet nevertheless cannot be reconciled with them—when the attack is more subtle, when the ego is less aware of the threat. (Cf. the discussion of such issues by Gilbert [7] and Wallen.[8])

Summary and Conclusions

Previous studies have indicated the phenomenon of selective perception and recall; an individual notes and remembers material which supports his social attitudes better than material which conflicts with these attitudes. The problem for investigation here was to extend the study of the learning and forgetting processes and to develop curves for these processes.

Attitude toward the Soviet Union was adopted for study. Two paragraphs, one mildly pro-Soviet, the other more bitterly anti-Soviet, were used. The subjects were two groups of college students, one pro-Communist, the other anti-Communist, with five in each group. Learning was studied for four weeks, forgetting for five. K. B. Clark's idea-group method of analysis was used to score the recalled material.

For the pro-Soviet selection, the differences were not statistically significant during the learning period, but became so in the latter part of the forgetting period. The pro-Soviet group showed a tendency to increase in superiority in both periods. The curves were not markedly different except for the points noted in the text. For the anti-Soviet paragraph, differences between the curves were significant throughout.

Some factors for differences and the extent of possible generalization were discussed.

Appendix

Anti-Soviet Union Selection

From "Stalin" by Souvarine

Russia, | bled white | by Stalin, | leaves the field free | for German dynamism, | and holds itself on the defensive | like the old decadent western nations. | In Russia of today | the appropriation of profit | has an

[7] G. M. Gilbert, "New Status of Experimental Studies on the Relationship of Feeling to Memory," *Psychol. Bull.*, 1938, XXXV, 26–35.

[8] D. Wallen, "Ego Involvement as a Determinant of Selective Forgetting," *J. Abnor. & Soc. Psychol.*, 1942, XXXVII, 20–39.

unquestionably | private character. | Private profit is apparent | in the growing social inequality, | which is more revolting | in its arrant injustice | than in the capitalist countries | where it is diminishing, | more intolerable in the terminology of hypocritical equalitarianism. | No society, | it is true, | has ever existed without hierarchy, | without authority. | But the socialist dream | of founding one in Russia | has turned into a nightmare. | The "expropriation of the expropriators" | has led to a sore of bureaucratic | feudalism | under which the proletariat | and the peasantry, | debased | by the officialdom | and the mandarinate, | have been reduced to a kind of serfdom. | If the methods of production are not entirely capitalistic | it is only because, | for the majority of the Soviet pariahs, | the system deserves rather the name of slavery. | It is a regime of privilege | because one of exploitation, | a regime of police | because one of oppression. | It is a mixed structure without architecture, | without principles, | without solidity, | without roots, | heterogeneous | and full of contradictions. | Liberty of the press | and the right of assembly | exist only in memory. |

The spirit of the liquidation of the kulaks | in the late twenties | still exists in toto. | No contemporaneous records | have been able to keep up | with all the mass arrests | and executions, | the assassinations | which collectivization dragged in its wake. | The secrets of the barbarous deportations | of millions of human beings, | transplanted to Arctic regions | and the Urals | are not revealed. | An American correspondent | extremely favorable to Stalin's interests | estimated at 2 million | the approximate number | banished and exiled in 1929–1930. |

Pro-Soviet Union Selection

From "Soviet Russia Today"

An American correspondent | for the Christian Science Monitor in Russia, | viewing the transformation | in the Western Ukraine | following Soviet occupation | in 1939, | reports:

"Only a few days have passed | since the provisional government set to work on its new tasks, | but the fruits of its labors | are already in evidence. | Power stations | and other enterprises | are functioning normally. | Departments of education | are being formed, | departments of commerce | and food supplies, | of health | and communal service | and local industries. | Students will be provided with text books | and instruction | in their native language. | A plan is drawn up for the reconstruction of bridges, | roads, | and houses. | The provisional government was elected | by the people of the villages | at the first real election the people of that area have had. |

A group of the peasants went into Russia as the guests of a collective farm. | The farmers took them to see their bright clean cottages, | showed them the cattle enclosures, | and all their rich | modern equipment. | The wonder of the trip was a tractor. | It was the first time the group had seen one. |

* * * * * * *

The popular assembly | of Western Ukraine | passed the following resolution: | "At assemblies and meetings | the people expressed their desire | to merge with the Soviet Union. | For only in the Soviet Union | has the exploitation of man | been abolished. | Hundreds | of powerful factories | and industrial plants | have been built | where a working class is employed | that knows nothing of exploitation. | The Ukrainian peasantry has become economically | strong, | possessing the entire land | and cultivating it with the latest technique. | The people feel that only through the Soviet Union | could they freely | participate in the administration of the state, | in the building of a free | and happy life for themselves." |

Though the peasants are not aware of the world politics, | they seem to have experienced | the abolition of all national oppression, | and the feeling of the unity of peoples, | since the Soviet occupation. |

7.

SKIN COLOR JUDGMENTS OF NEGRO COLLEGE STUDENTS

By Eli S. Marks

Observations of the skin color judgments made by field workers on a study of rural Negro youth[1] indicated a tendency for the reference scales used to depend upon the rater's skin color. Darker judges seemed to ascribe a lighter color to a given subject than did lighter judges. The same study also indicated that Negro youth associated "favorable" characteristics with light brown skin color and "unfavorable" characteristics with black and white or very dark and very light skin color. There was also observed a tendency of these youth in rating the principals of their schools for skin color to "displace" the rating of popular principals toward light brown and to "displace" the rating of unpopular principals away from this color.

The present study attempted to investigate more thoroughly the relation between the judge's skin color and his ratings and the relation between ratings of skin color and ratings of attractiveness. Two groups of Negro students enrolled in elementary psychology courses at Fisk University were used. These groups are designated as Group A, which did the rating in October 1941, and Group B, whose ratings were obtained in March 1942. A third group, Group C, composed of graduate students of sociology in a seminar on Race and Culture in December 1941, was also used. Group C was much smaller and somewhat more sophisticated than the other two groups, and its results are reported here mainly for certain additions to the procedure used with this group.

From Group A there were obtained ratings of six characteristics: energy, personal charm, intelligence, stoutness, skin color, and intimacy of acquaintance. Each member of the class rated every other member present on the day of the experiment for all six traits. Ratings were on an eight-point scale, in which "0" represented one extreme and "7" the other. Meanings were assigned to the extremes only, as follows:

I Energy
 0 Very energetic
 7 Very unenergetic
II Personal Charm
 0 Very attractive
 7 Very unattractive
III Intelligence
 0 Very intelligent
 7 Very unintelligent
IV Stoutness
 0 Very stout
 7 Very thin
V Skin Color
 0 Very dark
 7 Very light
VI Intimacy
 0 Know person very well
 7 Know person only slightly

With Group A the ratings for the various traits of a given subject were made at the same time, making it necessary for the judges to change constantly from one rating scale to another. Examination of the ratings of skin color for Group A showed excessive variability in the ratings of some subjects. Although most judges agreed in placing a subject within a range of 3 to 4 positions, a few judges showed marked deviation, even rating as 6, subjects whose modal ratings were 1 or 2. For this reason Group A was

From *Journal of Abnormal and Social Psychology*, 1943, XXXVIII, 370–376. Reprinted by permission of the author and the American Psychological Association, Inc.

[1] C. S. Johnson, *Growing Up in the Black Belt* (Washington: American Council on Education, 1941).

asked to repeat its ratings of stoutness and skin color at a second class period two days after the first experiment. The second ratings show less variability in rating a subject and better discrimination between the subjects.

In the case of Groups B and C the procedure was modified so that ratings for all subjects on a particular trait were completed before beginning to rate another trait. Group B rated only intelligence, personal charm (or attractiveness), and skin color. Group C made all six ratings. The skin color of the subjects of Group C (and of the judges since the judges were also the persons rated) was measured by matching it on a color top with a mixture of black, red, yellow, and white, the measurements being expressed as percentage of black in the mixture after correcting for the fact that a dark red was used.

The investigation of the relation between the judge's skin color and his ratings of other persons required a measure of the judge's color. Actual skin color measurements were made for Group C only, but these measurements show a high correlation (.894) with the average skin color rating of a judge by all other judges in the group.

Since average skin color ratings correlate highly with measured skin color, they appear to be a valid index of objective skin color. The results of Group A (female raters) indicate that average skin color ratings are also highly reliable. The 24 subjects of this group were rated twice. The correlation between the two average ratings was .978.

The ratings of skin color made by each judge were correlated with those of personal charm. These correlations were converted to z using R. A. Fisher's Table V. B.[2] and averages of the z's and the corresponding average r's are given in Table 1. Since individuals may rate personal charm (or attractiveness) on a different basis when rating persons of opposite sex from that used in rating persons of the same sex, it seemed desirable to consider ratings of females by females, males by males, females by males, and males by females separately. However, Group A contained only 6 males, and Group B, only 14 males. Separating Group C into males and females would have given only 7 males and 15 females. Table 1 therefore reports only the ratings of females by females for Groups A and B and ratings of all subjects by all other subjects for Group C.

As indicated in Table 1, the average correlations range from $-.24$ to $-.36$, indicating an association between light skin color and attractiveness. All of the average correlations are statistically significant.[3] When average ratings of skin color assigned to each subject are correlated with average ratings of personal charm, the correlations obtained are all significant. These correlations are:

Group	Correlation of Average Personal Charm Rating with Average Skin Color Rating of Each Subject
A (1st rating)	$-.530$
A (2nd rating)	$-.815$
B	$-.473$
C	$-.710$

The correlations between ratings of skin color and ratings of personal charm may be explained either in terms of the influence of objective skin color upon attractiveness or in terms of a tendency to displace skin color ratings on the basis of the person's attractiveness.

The dependence of ratings of attractiveness upon "objective" skin color is seen in the significant correlations between average rating for personal charm and average rating for skin color. As noted above, the average rating for skin

[2] R. A. Fisher, *Statistical Methods for Research Workers* (London Oliver & Boyd).

[3] Probabilities less than .02 were considered indicative of significant relationship.

TABLE 1

CORRELATION BETWEEN SKIN COLOR AND PERSONAL CHARM RATINGS OF EACH RATER

Statistical constant	Group A [a] 1st rating	Group A [a] 2nd rating	Group B [a]	Group C
No. of cases	27	24	37	19 [b]
Average z	−.263	−.383	−.246	−.332
Average r	−.25	−.36	−.24	−.32
SD of z	.419	.312	.219	.224
Theoretical SD of z [c]	.209	.224	.174	.236

[a] Ratings of females by females only.

[b] In Group C three cases were rated by the other subjects but did not complete their ratings of the other subjects, so that each z is based on 21 cases although there were only 19 raters.

[c] Each z is based on $n - 1$ cases so that SD (theoretical) $= \sqrt{\frac{1}{n-4}}$.

color appears to be a reliable and valid measure of "objective" skin color.

The simple relationship between objective color and attractiveness does not, however, give a complete picture of the results. It should first be noted that the preferred skin color is not the lightest color. The raters of Group C were asked to indicate what color they would like to be. Only one of the 19 raters checked category 6 and none checked 7 (the lightest categories). The darkest point checked as the preferred color was 2 (checked by only one rater). The average preferred color was 4.05. These preferences correlated .515 with the subject's ratings of his own color, but only .186 with the average of other judges' ratings of the subject's color.

There may be a tendency for the rater to prefer the color he believes himself to be. However, the variance (square of the standard deviation) of the preferred color choices was only .941, while the variance of the self-ratings was 1.778 and the variance of average skin color ratings was 2.326. It has already been noted that variation of the group in average skin color is indicative of the variation in objective skin color. The concentration of color preferences in a range which is less than two thirds the range of skin color present in the group indicates a definite social influence in the direction of preference for positions 3, 4, and 5. The fact that the variance in self-estimates of skin color is between the variance for preferred color and that for objective color suggests a compromise in the individual's conception of his own color between his color preference and his actual color. As a rough check on this point, it may be noted that 14 of the 19 subjects in Group C rated their own color as either the same as their preferred color or between the preferred color and the average color assigned them by other subjects. The compromise between objectivity and preference shows an analogy to the compromise between object-color and stimulus-color which appears in experiments on color constancy.

There is also evidence which suggests that sex plays a role in the relation found between skin color and attractiveness. The average z between skin color and attractiveness was −.413 (standard deviation of .235) for the ratings of the 37 females by the 14 males in Group B. As Table 1 indicates, the average z between skin color and attractiveness for girls' judgments of girls in Group B (the same 37 girls being judged) was −.246. The difference between males and fe-

males is statistically significant. There is a definite indication that skin color and attractiveness of female subjects are more closely related for male judges than they are for females. This is consistent with the results of an unpublished study of Fisk University freshmen in which it was found that males considered skin color important in the choice of a mate while females did not consider it important.

A "displacement" in the rating of skin color appears when we examine the relationship between ratings and the color of the rater. The average rating assigned by other subjects was taken as a measure of the rater's skin color. The validity of this procedure has already been discussed. When these measures of the rater's skin color are correlated with the ratings assigned to each subject a significant negative correlation appears.

The average correlations shown in Table 2 are all negative and all except the r of $-.05$ are statistically significant. It would appear that darker judges rate a given subject lighter than do the lighter judges. It may be suggested that each judge establishes his own reference scale and that this scale is independent of the subjects rated but not of the rater's own past experience. It appears further that each judge's rating scale tends to be egocentric, i.e., a subject is seen as darker or lighter than the rater and judgments are made accordingly. In such a scale the relative position of each subject will be the same for the different raters but the absolute position of a given subject will vary from rater to rater.

From the results reported, certain major facts stand out. The relation between the judge's own skin color and his ratings of others seems to have particular importance for the theory of social perception. The "egocentricity" of the reference scale of skin color judgments may well apply to judgments of any characteristic to which social value is attached.

In discussions of striving for superiority and feelings of inferiority, there is often a tendency to overlook the fact that the process of socialization involves also a striving to be "average." With regard to a great many characteristics the individual seeks to be neither superior nor inferior but to achieve a condition of "neutral emotional content." Just as strivings for superiority and feelings of inferiority may be conceived as a result of the individual's refusal to conform to his social environment, so the trend toward "neutral emotional content" represents an active attempt to conform. The desire to be inconspicuous in many characteristics is, of course, perfectly consistent with a wish to excel in other re-

TABLE 2

CORRELATION BETWEEN THE RATER'S SKIN COLOR AND SKIN COLOR RATINGS OF EACH SUBJECT

Statistical constant	Group A (2nd rating)		Group B		Group C
	All cases	Girls only	All cases	Girls only	
No. of cases	32	24	51	37	22 [a]
Average z	−.206	−.175	−.050	−.166	−.150
Average r	−.20	−.17	−.05	−.16	−.15
SD of z	.172	.213	.164	.171	.216
Theoretical SD of z	.189	.224	.146	.174	.250

[a] Each z based on 19 cases.

TABLE 3

VARIANCE OF AVERAGE SKIN COLOR RATINGS, AVERAGE VARIANCE IN SKIN COLOR RATINGS OF EACH JUDGE, AND VARIANCE IN SELF-RATINGS FOR SKIN COLOR OF EACH JUDGE

Skin color ratings	Group A [a] 2nd rating	Group B [a]	Group C
Number of cases	24	37	19
Variance of averages	1.773	1.862	2.326
Average variance	2.350	2.304	2.994
Variance of self-ratings	1.292	1.731	1.778

[a] Girls only.

spects and with a purposive exaggeration of one's inferiorities in still other fields.

The goal of neutral emotional content frequently involves a restructuring of our social perceptual field. The individual minimizes his own deviation (slight or great) from the "normal" by displacing his perception of other individuals so that they are seen as above or below average in terms of their difference from himself. The man who is 65 inches tall does not see himself as "short" but instead sees the man who is 68 inches in height as "tall." It may be suggested that the striving for neutral emotional content will manifest itself in egocentricity of judgment of other characteristics than that examined by the present study. Certainly, an investigation of this possibility would appear worthwhile.

A further feature of the tendency towards the neutral appears in the necessity of compromise between this trend and the objective fact. The skin color of the judge is related to his rating scale and in many cases seems to provide the reference point for the scale. However, the relation is far from perfect, in part because of the fact that some individuals are not aiming at neutrality *in this characteristic*, and in part because some individuals cannot achieve neutrality. The very dark individual cannot conceive himself as "neutral" in color because his social environment insists upon the "objective" facts. A compromise results, in which the deviation may be minimized (perceived as less extreme by the individual than it is by others) but is not ignored. The individual thinks of himself as dark but not as dark as he seems to his associates. This tendency to minimize one's own deviation from the "normal" is brought out by Table 3. It may be observed that the average skin color ratings of individuals by others show greater variance than do self-ratings of skin color, in spite of the fact that averaging tends to reduce variation. The average variance of the rater's judgments of others is even greater than the variance of the average ratings.

The general effect of the trend towards the neutral, whether complete or compromise, is a displacement in the individual's perception of others. This displacement is opposite in direction to the individual's "objective" deviation from the mean. Thus the light individual sees everyone else as darker than the average judgment tendency of the group while the dark individual sees everyone else as lighter. Just as the individual's objective skin color places a check upon his conception of his own color as neutral, so the objective colors of his associates place a check upon his displacement of their colors. In consequence skin color judgments show a dependence upon objec-

tive color, upon the rater's color, and upon the subject's color.

The egocentric factor is affected, of course, by other influences. Value judgments are important. For some individuals the "best" color may be preferred to neutral color. This is reflected in the correlation between preferred color and self-ratings and in the correlations between ratings of others for attractiveness and skin color.

SUMMARY

1. Ratings of attractiveness are definitely affected by objective skin color or by factors associated with it. These associated factors may be correlated physical traits. It is also possible that social stratification and color attitudes within the Negro group play a role here. The subjects judged most attractive seem to be those who are lighter than the average but not at the extremely light end of the skin color continuum. This also seems to be the preferred skin color.

2. There is a tendency to displace the ratings of subjects considered attractive in the direction of the preferred skin color, a given subject being placed nearer this color by raters who consider her attractive than by those who consider her unattractive.

3. The reference scale used by individual raters is somewhat independent of the composition of the group to be rated. The reference scale is dependent upon the rater's own skin color, persons lighter than the rater being judged as "light" and those darker than the rater as "dark," giving a negative correlation between the color of the rater and the rating assigned to a given subject.

4. It is suggested that the correlation between the rater's skin color and his ratings of a given subject may reflect a tendency of individuals to seek a position of "neutral emotional content." In seeking to be "average" the individual displaces his perception of other persons, so that his own color becomes the central point of his rating scale. Individuals who are very dark or very light show the trend toward the average in rating themselves and corresponding displacements in their ratings of others, but their objective skin color and the objective colors of other persons act as checks upon this tendency. The result is a compromise between an "egocentric" reference scale and an "objective" reference scale.

8.

SOCIAL PLANNING AND THE CONCEPT OF "DEUTERO-LEARNING"

By Gregory Bateson *

It is becoming increasingly clear to anthropologists that social planning is not a simple matter of drawing blue prints for the sort of culture which we hope to achieve. Rather it appears that we should select among the various possible *directions* in which change may occur at the given moment. Such a procedure will involve (*a*) certain modifications in the time perspective of the planners and

From *Science, Philosophy and Religion*, Second Symposium (New York: Conference on Science, Philosophy and Religion, 1942), pp. 81–97. Reprinted by permission of the author and the publisher.

* The original article formed part of the discussion of an article by Margaret Mead, published in the same volume. The present version is somewhat shortened and small changes have been introduced so as to make the article intelligible when separated from Margaret Mead's article and from the remainder of the discussion.

(*b*) the evaluation and promotion of characterological changes in the population.

The present essay attempts to show how we may define the formal relations between characterological change (e.g., an increase in the sense of free will) and the changes which occur in simple learning experiments.

This is not the simple type of question which is posed in most psychological laboratories, "under what circumstances will a dog learn to salivate in response to a bell?" or, "what variables govern success in rote learning?" Our question is one degree more abstract, and, in a sense, bridges the gap between the experimental work on simple learning and the approach of the gestalt psychologists. We are asking "how does the dog acquire a habit of punctuating or apperceiving the infinitely complex stream of events (including his own behavior) so that this stream appears to be made up of one type of short sequences rather than another?" Or, substituting the scientist for the dog, we might ask "what circumstances determine that a given scientist will punctuate the stream of events so as to conclude that all is predetermined, while another will see the stream of events as so regular as to be susceptible of control?" Or, again, on the same level of abstraction let us ask—and this question is very relevant to the promotion of democracy—"what circumstances promote that specific habitual phrasing of the universe which we call 'free will' and those others which we call 'responsibility,' 'constructiveness,' 'energy,' 'passivity,' 'dominance,' and the rest?" For all these abstract qualities, the essential stock-in-trade of the educators, can be seen as various habits of punctuating the stream of experience so that it takes on one or another sort of coherence and sense. They are abstractions which begin to assume some operational meaning when we see them take their place on a conceptual level between the statements of simple learning and those of gestalt psychology.

We are in common agreement that a sense of individual autonomy, a habit of mind somehow related to what I have called "free will," is an essential of democracy, but we are still not perfectly clear as to how this autonomy should be defined operationally. What, for example, is the relation between "autonomy" and compulsive negativism? The gas stations which refuse to conform to the curfew—are they or are they not showing a fine democratic spirit? This sort of "negativism" is undoubtedly of the same degree of abstraction as "free will" or "determinism"; like them it is an habitual way of apperceiving contexts, even sequences and own behavior; but it is not clear whether this negativism is a "subspecies" of individual autonomy; or is it rather some entirely different habit?

Evidently our need is for something better than a random list of these habits of mind. We need some systematic framework or classification which shall show how each of these habits is related to the others, and such a classification might provide us with something approaching the chart we lack. As planners, we propose to sail into as yet uncharted waters, adopting a new habit of thought; but if we knew how this habit is related to others, we might be able to judge of the benefits and dangers, the possible pitfalls of such a course. Such a chart might provide us with the answers to some of our questions—as to how we are to judge of the "direction" and value implicit in our planned acts.

You must not expect the social scientist to produce such a chart or classification at a moment's notice, like a rabbit out of a hat, but I think we can take a first step in this direction; we can suggest some of the basic themes—the cardinal points, if you like—upon which the final classification must be built.

We have noted that the sorts of habit

with which we are concerned are, in some sense, by-products of the learning processes, and it is therefore natural that we look first to the phenomena of simple learning as likely to provide us with a clue. We are raising questions one degree more abstract than those chiefly studied by the experimental psychologists, but it is still to their laboratories that we must look for our answers.

Now it so happens that in the psychological laboratories there is a common phenomenon of a somewhat higher degree of abstraction or generality than those which the experiments are planned to elucidate. It is a commonplace that the experimental subject, whether animal or man, becomes a better subject after repeated experiments. He not only learns to salivate at the appropriate moments, or to recite the appropriate nonsense syllables; he also, in some way, *learns to learn*. He not only solves the problems set him by the experimenter, where each solving is a piece of simple learning; but, more than this, he becomes more and more skilled in the solving of problems.

In semigestalt or semi-anthropomorphic phraseology, we might say that the subject is learning to orient himself to certain types of contexts, or is acquiring "insight" into the contexts of problem solving. In the jargon of this paper, we may say that the subject has acquired a habit of looking for contexts and sequences of one type rather than another, a habit of "punctuating" the stream of events to give repetitions of a certain type of meaningful sequence.

The line of argument which we have followed has brought us to a point at which statement about simple learning meet statements about gestalt and contextual structure and we have reached the hypothesis that "learning to learn" is a synonym for the acquisition of that class of abstract habits of thought with which this paper is concerned: that the states of mind which we call "free will," instrumental thinking, dominance, passivity, etc., are acquired by a process which we may equate with "learning to learn."

This hypothesis is to some extent new[1] to psychologists as well as to laymen, and therefore I must digress at this point to supply technical readers with a more precise statement of my meaning. I must demonstrate at least my willingness to state this bridge between simple learning and gestalt in operational terms.

Let us coin two words, "proto-learning" and "deutero-learning," to avoid the labor of defining operationally all the other terms in the field (transfer of learning, generalization, etc., etc.). Let us say that there are two sorts of gradient discernible in all continued learning. The gradient at any point on a simple learning curve (e.g., a curve of rote learning) we will say chiefly represents rate of proto-learning. If, however, we inflict a series of similar learning experiments on the same subject, we shall find that in each successive experiment the subject has a somewhat steeper proto-learning gradient, that he learns somewhat more rapidly. This progressive change in rate of proto-learning we will call "deutero-learning."

[1] Psychological papers bearing upon this problem of the relationship between gestalt and simple learning are very numerous, if we include all who have worked on the concepts of transfer of learning, generalization, irradiation, reaction threshold (Hull), insight, and the like. Historically, one of the first to pose these questions was Mr Frank (L. K. Frank, "The Problems of Learning," *Psych. Rev.*, 1926, XXXIII, 329–351); and Professor Maier has recently introduced a concept of "direction" which is closely related to the notion of "deutero-learning." He says: "direction . . . is the force which integrates memories in a particular manner without being a memory itself" (N. R. F. Maier, "The Behavior Mechanisms Concerned with Problem Solving," *Psych. Rev.*, 1940, XLVII, 43–58). If for "force" we substitute "habit," and for "memory" we substitute "experience of the stream of events," the concept of "deutero-learning" can be seen as almost synonymous with Professor Maier's concept of "direction."

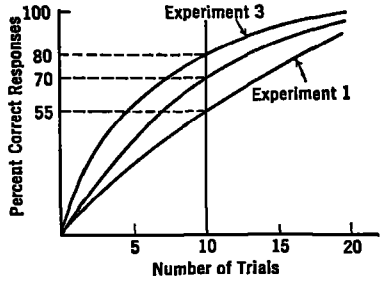


FIG. 1. Three successive learning curves with the same subject, showing increase in rate of learning in successive experiments.

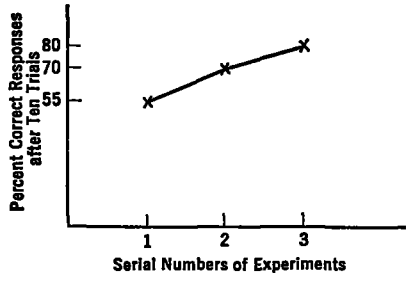


FIG. 2. Deutero-learning curve derived from the three learning experiments in Figure 1.

From this point we can easily go on to represent deutero-learning graphically with a curve whose gradient shall represent rate of deutero-learning. Such a representation might be obtained, for example, by intersecting the series of proto-learning curves at some arbitrarily chosen number of trials, and noting what proportion of successful responses occurred in each experiment at this point. The curve of deutero-learning would then be obtained by plotting these numbers against the serial numbers of the experiments.[2]

In this definition of proto- and deutero-learning, one phrase remains conspicuously vague, the phrase "a series of similar experiments." For purposes of illustration, I imagined a series of experiments in rote learning, each experiment similar to the last, except for the substitution of a new series of nonsense syllables in place of those already learned. In this example, the curve of deutero-learning represented increasing proficiency in the business of rote learning, and, as an experimental fact, such increase in rote proficiency can be demonstrated.[3]

Apart from rote learning, it is much more difficult to define what we mean by saying that one learning context is "similar" to another, unless we are content to refer the matter back to the experimentalists by saying that learning contexts shall be considered to be "similar" one to another whenever it can be shown experimentally that experience of learning in one context does, as a matter of fact, promote speed of learning in another, and asking the experimentalists to find out for us what sort of classification they can build up by use of this criterion. We may hope that they will do this; but we cannot hope for immediate answers to our questions, because there are very serious difficulties in the way of such experimentation. Experiments in simple learning are already difficult enough to control and to perform with critical exactness, and experiments in deutero-learning are likely to prove almost impossible.

There is, however, an alternative course open to us. When we equated "learning to learn" with acquiring apperceptive habits, this did not exclude the possibility that such habits might be acquired in other ways. To suggest that the only method of acquiring one of

[2] It will be noted that the operational definition of deutero-learning is necessarily somewhat easier than that of proto-learning. Actually, no simple learning curve represents proto-learning alone. Even within the duration of the single learning experiment we must suppose that some deutero-learning will occur, and this will make the gradient at any point somewhat steeper than the hypothetical gradient of "pure" proto-learning.

[3] C. L. Hull and others, *Mathematico-Deductive Theory of Rote Learning* (New Haven: Yale University Press, 1940).

these habits is through repeated experience of learning contexts of a given kind would be logically analogous to saying that the only way to roast pig is by burning the house down. It is obvious that in human education such habits are acquired in very different ways. We are not concerned with a hypothetical isolated individual in contact with an impersonal events-stream, but rather with real individuals who have complex emotional patterns of relationship with other individuals. In such a real world, the individual will be led to acquire or reject apperceptive habits by the very complex phenomena of personal example, tone of voice, hostility, love, etc. Many such habits, too, will be conveyed to him, not through his own naked experience of the stream of events, for no human beings (not even scientists) are naked in this sense. The events-stream is mediated to them through language, art, technology, and other cultural media which are structured at every point by tramlines of apperceptive habit.

It therefore follows that the psychological laboratory is not the only possible source of knowledge about these habits; we may turn instead to the contrasting patterns implicit and explicit in the various cultures of the world studied by the anthropologists. We can amplify our list of these obscure habits by adding those which have been developed in cultures other than our own.

Most profitably, I believe, we can combine the insights of the experimental psychologists with those of the anthropologists, taking the contexts of experimental learning in the laboratory and asking of each what sort of apperceptive habit we should expect to find associated with it; then looking around the world for human cultures in which this habit has been developed. Inversely, we may be able to get a more definite—more operational—definition of such habits as "free will" if we ask about each, "What sort of experimental learning context would we devise in order to inculcate this habit?" "How would we rig the maze or problem-box so that the anthropomorphic rat shall obtain a repeated and reinforced impression of his own free will?"

The classification of contexts of experimental learning is as yet very incomplete, but certain definite advances have been made.[4] It is possible to classify the principal contexts of positive learning (as distinct from negative learning or inhibition, learning *not* to do things) under four heads, as follows:

I. Classical Pavlovian Contexts. These are characterized by a rigid time sequence in which the conditioned stimulus (e.g., buzzer) always precedes the unconditioned stimulus (e.g., meat powder) by a fixed interval of time. This rigid sequence of events is not altered by anything that the animal may do. In these contexts, the animal learns to respond to the conditioned stimulus with behavior (e.g., salivation) which was formerly evoked only by the unconditioned stimulus.

II. Contexts of Instrumental Reward or Escape. These are characterized by a

[4] Various classifications have been devised for purposes of exposition. Here I follow that of Hilgard and Marquis (E. R. Hilgard and D. G. Marquis, *Conditioning and Learning*, New York: Appleton-Century Co., 1940). These authors subject their own classification to a brilliant critical analysis, and to this analysis I am indebted for one of the formative ideas upon which this paper is based. They insist that any learning context can be described in terms of any theory of learning, if we are willing to stretch and over-emphasize certain aspects of the context to fit onto the Procrustean bed of the theory. I have taken this notion as a corner-stone of my thinking, substituting "apperceptive habits" for "theories of learning," and arguing that almost any sequence of events can be stretched and warped and punctuated to fit in with any type of apperceptive habit. (We may suppose that experimental neurosis is what happens when the subject fails to achieve this assimilation.)

I am also indebted to Lewin's topological analysis of the contexts of reward and punishment (K. Lewin, *A Dynamic Theory of Personality*, New York: McGraw-Hill Book Co., 1936).

sequence which depends upon the animal's behavior. The unconditioned stimulus in these contexts is usually vague (e.g., the whole sum of circumstances in which the animal is put, the problem-box) and may be internal to the animal (e.g., hunger). If and when, under these circumstances, the animal performs some act within its behavioral repertoire and previously selected by the experimenter (e.g., lifts its leg), it is immediately rewarded.

III. Contexts of Instrumental Avoidance. These are also characterized by a conditional sequence. The unconditioned stimulus is usually definite (e.g., a warning buzzer) and this is followed by an unpleasant experience (e.g., electric shock) *unless* in the interval the animal performs some selected act (e.g., lifts leg).

IV. Contexts of Serial and Rote Learning. These are characterized by the predominant conditioned stimulus being an act of the subject. He learns, for example, always to give the conditioned response (nonsense syllable B) after he has himself uttered the conditioned stimulus (nonsense syllable A).

This small beginning of a classification [5] will be sufficient to illustrate the principles with which we are concerned and we can now go on to ask about the occurrence of the appropriate apperceptive habits among men of various cultures. Of greatest interest—because least familiar—are the Pavlovian patterns and the patterns of rote. It is a little hard for members of Western Civilization to believe that whole systems of behavior can be built on premises other than our own mixture of Instrumental Reward and Instrumental Avoidance. The Trobriand Islanders, however, appear to live a life whose coherence and sense is based upon looking at events through Pavlovian spectacles, only slightly tinted with the hope of instrumental reward, while the life of the Balinese is sensible if we accept premises based upon combining rote with instrumental avoidance.

Clearly, to the "pure" Pavlovian, only a very limited fatalism would be possible. He would see all events as pre-ordained and he would see himself as fated only to search for omens, not able to influence the course of events—able, at most, from his reading of the omens, to put himself in the properly receptive state, e.g., by

[5] Many people feel that the contexts of experimental learning are so oversimplified as to have no bearing upon the phenomena of the real world. Actually, expansion of this classification will give means of defining systematically many hundreds of possible contexts of learning with their associated apperceptive habits. The scheme may be expanded in the following ways:

a. Inclusion of contexts of negative learning (inhibition).

b. Inclusion of mixed types (e.g., cases in which salivation, with its physiological relevance to meat powder, is also instrumental in obtaining the meat powder).

c. Inclusion of the cases in which the subject is able to deduce some sort of relevance (other than the physiological) between some two or more elements in the sequence. For this to be true, the subject must have experience of contexts differing systematically one from another, e.g., contexts in which some type of change in one element is constantly accompanied by a constant type of change in another element. These cases can be spread out on a lattice of possibilities, according to which pair of elements the subject sees as interrelated. There are only five elements (conditioned stimulus, conditioned response, reward or punishment, and two time intervals), but any pair of these may be interrelated, and of the interrelated pair, either may be seen by the subject as determining the other. These possibilities, multiplied for our four basic contexts, give forty-eight types.

d. The list of basic types may be extended by including those cases (not as yet investigated in learning experiments but common in interpersonal relationships) in which the roles of subject and experimenter are reversed. In these, the learning partner provides the initial and final elements, while some other person (or circumstance) provides the middle term. In these types, we see the buzzer and the meat powder as the behavior of a person and ask: "What does this person learn?" A great part of the gamut of apperceptive habits associated with authority and parenthood is based on contexts of this general type.

salivation, before the inevitable occurred. Trobriand culture is not so purely Pavlovian as this, but Dr. Lee,[6] analyzing Professor Malinowski's rich observations, has shown that Trobriand phrasings of purpose, cause, and effect are profoundly different from our own; and though Dr. Lee does not use the sort of classification here proposed, it appears from Trobriand magic that these people continually exhibit a habit of thinking that to act as if a thing were so will make it so. In this sense, we may describe them as semi-Pavlovians who have decided that "salivation" is instrumental to obtaining "meat powder." Malinowski, for example, gives us a dramatic description of the almost physiological extremes of rage [7] which the Trobriand black magician practices in his incantations, and we may take this as an illustration of the semi-Pavlovian frame of mind in contrast with the very various types of magical procedure in other parts of the world, where, for example, the efficacy of a spell may be associated not with the intensity but with the extreme rote accuracy of the recitation.

Among the Balinese [8] we find another pattern which contrasts sharply both with our own and with that of the Trobrianders. The treatment of children is such that they learn not to see life as composed of connative sequences ending in satisfaction, but rather to see it as composed of rote sequences inherently satisfying in themselves. This Balinese pattern is essentially derivative from contexts of Instrumental Avoidance; they see the world as dangerous, and themselves as avoiding, by the endless rote behavior of ritual and courtesy, the everpresent risk of *faux pas*. Their life is built upon fear, albeit that in general they enjoy fear. The positive value with which they endow their immediate acts, not looking for a goal, is somehow associated with this enjoyment of fear. It is the acrobat's enjoyment both of the thrill and of his own virtuosity in avoiding disaster.

We are now, after a somewhat long and technical excursion into psychological laboratories and foreign cultures, in a position to return to the problem from which we started. We asked about the psychological implications of a shift from an emphasis on blueprints to an emphasis on directions of change, and this new orientation is clearly comparable in certain ways with the Balinese habit of seeing the reward as immediately implicit in the act. As I see it, this new habit would, however, differ from that of the Balinese in being derived from Instrumental Reward rather than from Instrumental Avoidance. Instead of fear—even enjoyed fear—I believe that our enjoyment could be based on some sort of hope or optimism.

Such a habit is, I believe, feasible. If we define the Balinese habit as one of rote sequences inspired by a thrilling sense of ever-imminent but indefinite danger, then the habit which we are discussing might be defined in like terms as: a habit of rote sequences inspired by a thrilling sense of ever-imminent but undefined reward.

As to the rote component, which is almost certainly a necessary concomitant of the peculiar time orientation which we are discussing, I personally would welcome it, and I believe that it

[6] Dorothy Lee, "A Primitive System of Values," *J. Philos. of Sci.*, 1940, VII, 355–378.

[7] It is possible that semi-Pavlovian phrasings of the stream of events tend, like the experiments which are their prototypes, to hinge particularly upon autonomic reactions—that those who see events in these terms tend to see these reactions, which are only partially subject to voluntary control, as peculiarly effective and powerful causes of outside events. There may be some ironical logic in Pavlovian fatalism which predisposes us to believe that we can alter the course of events *only* by means of those behaviors which we are least able to control.

[8] G. Bateson and M. Mead, *Balinese Character: a Photographic Analysis* (New York: New York Academy of Sciences, 1942).

would be infinitely preferable to the compulsive type of accuracy after which we strive. Anxious taking-care and automatic, rote caution are alternative habits which perform the same function. We can either have the habit of automatically looking before we cross the street, or the habit of carefully remembering to look. Of the two I prefer the automatic, and I think that we ought to welcome a slight increase in automatism. Already indeed, our schools are inculcating more and more automatism in such processes as reading, writing, arithmetic and languages.

As to the reward component, this, too, should not be beyond our reach. If the Balinese is kept busy and happy by a nameless, shapeless fear, not located in space or time, we might be kept on our toes by a nameless, shapeless, unlocated hope of enormous achievement. For such a hope to be effective, the achievement need scarcely be defined. All we need to be sure of is that, at any moment, achievement may be just around the corner, and, true or false, this can never be tested. We have got to be like those few artists and scientists who work with this urgent sort of inspiration, the urgency that comes from feeling that great discovery, the answer to all our problems, or great creation, the perfect sonnet, is always only just beyond our reach, or like the mother of a child who feels that, provided she pay constant enough attention, there is a real hope that her child may be that infinitely rare phenomenon, a great and happy person.

III

Socialization of the Child

1.

SOCIAL FACTORS IN CHILD DEVELOPMENT

By Lois Barclay Murphy

In the United States in 1940 there were 41,000,000 persons under the age of eighteen, about one third of the total population. About 2,500,000 babies are born each year. The social psychology of childhood is primarily concerned with the ways in which these children grow into the democratic society into which they are born, the ways in which the complexities of this society shape their individual personalities, the difficulties or problems involved in becoming acceptable and happy persons in this society.

Before the war, nearly two thirds of our city children were living in families where the income was less than the equivalent of $1,260 a year for a family of four, the minimum income needed for a "maintenance standard of living." Families with incomes of $3,000 and over in the cities have about half as many children as families with incomes of less than $1,000. Rural families, with lower incomes than urban families, on the average have more children. Combining the rural and the lower urban levels, we find that a majority of children in the United States (51 percent in 1940) are growing up on about half the income which the favored city families have for the remainder (49 percent).

Throughout this discussion it should be remembered that, because of their lesser accessibility, almost no social psychological studies of farm children have been made. Consequently we are in the unsatisfactory position of reporting the social psychology of childhood on a minority—the minority easily accessible in institutions, hospitals, nursery schools, in public and private schools and high schools. Studies of development in rural children are urgently needed.

The decade of the 1930's, with its prolonged depression, gave many millions of children the experience of living for a shorter or longer period in a society in which their parents could not "earn an honest living." In the early months of 1934, there were 8,000,000 families with more than 11,000,000 children receiving relief or wages from the public works program, and even late in 1940 approximately 7,000,000 children were receiving aid. In addition, many families fighting to avoid "being put on relief" were getting along on even less than those who received relief. Estimates have been made that one third to one half of the population had to be helped during the ten years of the depression. Translated into housing, play space and equipment, privacy, food, clothing, books and educational stimulation at home, this means

The introductory material for this chapter is adapted from Leah Levinger and Lois B. Murphy, "Implications of the Social Scene for the Education of Young Children," *Early Childhood Education, Forty-sixth Yearbook*, Part II (Chicago: National Society for the Study of Education, 1947), ch. 3. The remainder has been prepared for this volume.

that a large number of children in our society have made their start in inadequate environments. It is not surprising that many adults in the United States have never finished elementary school although technological advances have created a culture of machinery and science which makes it hard to participate without education.

Minorities

One may estimate that a third of the children in our culture belong to minority groups, including approximately 4,000,000 Negro children, 140,000 Indians, 15,000 Chinese, 56,000 Japanese, 600,000 Mexicans. There are also about 8,000,000 children either born abroad or who have foreign-born or mixed (one native- and one foreign-born) parents. Social psychological studies of these children for the most part are limited to a few excellent studies of Negroes. The experience of growing up as a member of a minority group, such as the Jewish, the Chinese, or the Mexican, remains to be adequately documented.

If we change the frame of reference and regard children growing up in the family as the majority group, minority groups include 250,000 children in institutions for dependent children or in foster homes, and some 23,000 children in state schools for delinquents. Some 365,000 children are crippled and have special problems of socialization. An unknown number of mentally subnormal and retarded children need training and special help in growing into the social world of today. We do not know the exact overlapping of these groups, but there is no doubt that economic handicaps and minority group membership overlap considerably, and that the combination of the two often means tangential or marginal relation to the community, with consequent attenuation of constructive experiences of growing into the culture.

Although we cannot designate the full range of cultural opportunities available to the most fortunate, we can get some idea of the range from the following comparison. In a suburban area in New York State, children are growing up in a village of about 7,000 population in an area of one square mile. In this community, 68 percent of the adults have had four years of high school. Eighty-two percent have managerial, professional, or commercial jobs; about 30 percent own their homes. The village supports a school which provides training in sports, social dancing, art, music, science, as well as the usual elementary and secondary curriculum, taught by exceptionally experienced and well-trained teachers at a cost of over $350 per child per year. Four churches, an active Boy Scout and Girl Scout program, summer recreation school, evening "open house" parties at the school for those of high-school age are part of the community's provisions for young people.

On the surface, the opportunities for the wholesome development of children in this community are outstanding. Yet these children are affected by the following adverse factors: the prevalence of landscaping which allows no room for backyard digging, adventures, and games; the 40 percent real estate turnover in rentals and sales each year, which is the statistical equation of a rapidly shifting population; the great pressure on children toward superior achievement, leadership, and socially conforming behavior and the remoteness of adults from spontaneous child life. At the other end of the scale we might take the Negro children studied by Charles S. Johnson [1] or by Dollard and Davis,[2] some

[1] Charles S. Johnson, *Growing Up in the Black Belt* (Washington: American Council on Education, 1941).

[2] Allison Davis and John Dollard, *Children of Bondage* (Washington: American Council on Education, 1940).

of whom were in schools taught by teachers who themselves had not completed, or in some cases even gone to, high school; whose parents were comparably uneducated; and for whom community facilities were completely lacking. We need not, of course, go so far, since at a distance of fifteen to twenty miles from the first privileged community we could find the Harlem and East Side sections of New York, where children, crowded into small apartments, have often only the resources of the streets for out-of-school activities. Contrasts of this sort underlie not only the much publicized juvenile delinquency (including zoot-suit phenomena and adolescent unmarried mothers), which constitutes one of the outstanding social psychological aspects of our society, but also the apathy, so-called "laziness," and other character traits of neglected groups such as Negroes and Mexicans.

This range, with its inherent contrasts, has been emphasized in order to make clear that the pattern of socialization often taken for granted as typically or universally American—namely, growth during preschool years in a loving and comfortable home, followed by learning "how to be a good sport," "take it on the chin," "hold your own with the best," "do your part," in a well-equipped school and neighborhood—is not universal. Indeed, it is probably experienced by less than half of the children in our society.

While attractive home life, wholesome play, stimulating education, and vocational training are available to only part of the children, probably all or most of the children find release and excitement in comics, movies, and radio. Excitement, achievement, sex, adventure, terror, are commonly noted in criticisms of these activities by adults concerned with moral and esthetic values, but psychiatrically minded commentators are apt to find therapeutic values. Reversal of child-adult roles, triumph of childish ingenuity, defeat of rigid or aggressive parental activity, resolution of sibling conflicts, transcendence of reality limitations, are important themes for children along with the melodramatic ones; and all together provide an important world of fantasy to be shared with friends as well as to be enjoyed alone.

Divorces, prolonged illness or death of one parent (or of both), alcoholism, emotional stress are hazards to family life by no means confined to economically insecure groups. In one upper-middle-class group of 130 children, about 20 percent had experienced a broken home for a period of six months or more before the age of five, due to prolonged illness such as tuberculosis or a nervous breakdown, or due to deaths and to divorces. Where relatives can contribute a sense of protection and stability, such experiences may not greatly alter the smooth rhythm of the child's social maturing; but when a child is constantly uprooted and feels the ground to be shaky under his feet, deep character traits of withdrawal, scattered behavior and thinking, or aggressive drives may shape his social development.

The Cultural Plot

Instead of one "cultural plot" whose features parallel the life history of most individuals in the culture, our western civilization has given rise to several whose outlines may be discovered if we note factors which may make children even in infancy more "passive" or "active";[3] in the schools we encounter withdrawn and aggressive children; there are introverted and extroverted adults; and cultural disorders may arise from the self-punishing neurotic and from the criminal or gangster types. Everywhere

[3] M. E. Fries and B. Lewi, "Interrelated Factors in Development: a Study of Pregnancy, Labor, Delivery, Lying-in Period and Childhood," *Am J Orthopsychiat* 1938. VIII. 726–752.

we encounter the "haves" and "have nots"; the political "big shots" and the "little fellows"; the powerful and the powerless. Psychological differences may be related to the economic and political differences—the lower birth rates and big-city environments of many of the "haves" may be contrasted with higher birth rates and rural or small-town environments of many of the "have nots"; possibly also the "smart," perhaps emotionally thin, quality of adult "haves" versus the emotional warmth of many "have nots."[4] Thus, some children get their socializing experience in a world of chilly adults, few children, and limited opportunity for child living, surrounded by power or prestige, while others are being socialized in a world of warm adults,[5] many children, free space for childish exploration, and an atmosphere where power and prestige are a dream or do not exist at all. Regularized feedings, elimination, and control of activity probably go with the former, while the latter group are handled with more response to their needs, as indicated by crying, reaching, and later, demanding. Pressures to be polite, neat, truthful, sexually discreet, may be comparable in both groups, but in the "haves" life is 90 percent socialization or pressure to conformity, and in the "have nots" perhaps 50 percent, despite the fact that "they've got to mind" when commanded. Compare the child who is in a good school until three o'clock, goes to Scouts, music lesson, dancing lesson after school, with the child who is free to explore and play as he likes after school and on Saturdays and Sundays.

At the same time, many children in the big cities who belong to "have not" families suffer the deprivations of metropolitan life without the compensations of family warmth that some rural children share. Where to the deprivation of city deserts there is added rejection or hostility from parents and exposure to delinquent gangs in the streets, asocial patterns are almost inevitable, though material deprivation in well loved rural children has no antisocial effects that we know.

To these differences are to be added the differences in parent attitude and behavior, rooted partly in subcultural differences between Italian, Spanish-American, Jewish, New England, and Park Avenue or Main Street "Anglo-Saxons." Grant Wood's "American Gothic" parents, compared with Spanish-American parents like those in Rivera's paintings, portray these differences more eloquently and perhaps more significantly than do the measurements of psychologists who seldom venture into the areas where differences are dramatic.

Along with these differing basic plots, with their varying patterns of gratifying, loving, depriving, punishing, constraining, stimulating or allowing free rein, one encounters general forces. In addition to the movies, radio, comic books—which are all things to all children, as we mentioned above—the schools with their shared socializing patterns of song, baseball and the three 'Rs, Boy Scouts and Girl Scouts, Protestant, Catholic and Jewish church groups, cut across power groups and national and geographic subculture areas. Yet when at eighteen young people from different families and states come together in the big universities, the common language learned in the public schools, the movies and the cheap magazines is not so powerful as to hide the differences still carrying over from family and subculture breeding. A Baptist from Kentucky, an Irish Roman Catholic from Boston, a Mormon from Salt Lake City, can communicate at the University of Chicago, to be sure, but

[4] J. Dollard, *Caste and Class in a Southern Town* (New Haven: Yale University Press, 1937), p. 502

[5] Claudia Lewis, *Children of the Cumberland* (New York: Columbia University Press, 1946).

they have much to learn from each other.

In a complex culture with many variations, it is inevitable that one aspect of the child's social development should include coming to terms with the particular subculture conflicts to which he is exposed. Whether he is taunted by the children from a traditional school that "we learn more than you do at progressive schools," or by the Southerners who surround him in recess the first day he arrives from Massachusetts, calling him a "damyankee," or by the white children who yell "chocolafe-drop" as he tries to slide by unobserved, or merely by the children across the street who say "your mother isn't strict enough, she never spanks you," the problem of living with differences is a major one for many children in our melting-pot culture.

Since in many or most areas in the United States children are shielded from observation of birth, death, even severe illness, or the anxieties of adults, these "realities" of life are less real to the average town or city child than his own little world of winning the next baseball game or the spelling match. Add to this the fact that considerable school experience is directed toward ego enhancement or depreciation, with marks, stars, honors, etc. We consequently find a social or cultural pattern in which reality is underplayed in favor of the ego of the growing individual—a situation not calculated to keep social relations in perspective during the growth process. Add further the fact that currently more and more is done *for* children, and less and less *with* them—in the sense in which the farm child develops a sense of participation through his inevitable and necessary chores. All this provides the basis for an increasingly tenuous relation of the individual to the group.

Stages in the Development of Social Behavior

Our knowledge of stages in the social development of the child, based as it is upon studies of urban children available in hospitals, nursery schools, and schools, may be outlined as follows:

We have evidence that infants can be conditioned within the first two weeks of life, and Ribble has suggested that the quality of social handling or mothering received is important to the physiological functioning of the child, including circulation, breathing, and digestion.[6]

While, shortly after birth, a baby's eyes may follow a light or moving body, a definite "social smile" does not generally appear until about the age of six weeks.[7] As the baby gains increasing control of coordination—learning to grasp, get up, crawl, walk—and as its repertoire of sounds, babbling, and talk increase, it becomes increasingly able to give, receive, and react to social stimulation. During the first six months nursing and the cuddling and mother-baby play which every child needs provide the first foundation for feelings of satisfaction in social experience. Tense handling, rejection or ignoring, rigid adherence to feeding schedules are common sources of frustration and tension in social relationships; later during the first year, rigid toilet training, excessive confinements in playpens or cribs, excessive emphasis on cleanliness or neatness may lay the foundation for frustrated, hostile, rigid, or anxious social attitudes.

During the second year (for most children) the acceleration of speech and locomotion are major stimulants to the child's sense of himself, of the world, of other people, and of the satisfactions or frustrations their presence implies for

[6] M. A. Ribble, "Infantile Experience in Relation to Personality Development," in J. McV. Hunt (ed.), *Personality and the Behavior Disorders* (New York: Ronald Press, 1944), ch. 20.

[7] C. Bühler, "The Social Behavior of Children" in C. Murchison(ed), *Handbook of Child Psychology* (Worcester: Clark University Press, 1933), ch. 9. See also G. Murphy, L. B. Murphy, and T. Newcomb, *Experimental Social Psychology* (New York: Harper & Brothers, 1937), ch. 9.

him. From then on through the remainder of the period, the relations with each member of the family are of great importance in further shaping the child's social personality, with its qualities of dependence or independence, exhibitionism or shyness, aggressiveness or fear, placidity or excitability, adaptability or rigidity, its clarity of identification with its own sex role; with its process of growing up; with its membership in a group.

At two, most nursery-school children play largely alone; then they play in the neighborhood of other children but without real social give and take; by the age of four they play in pairs or small groups. Up to the age of four there is generally little or no sex differentiation in play; boys as well as girls may take care of babies or iron the clothes. At four and five, boys identify themselves with a masculine role, reject feminine activities, prefer fire engines, locomotives, and aggressive games; girls become more definitely interested in dressing up and in feminine activities. This differentiation may not appear so early among children who have not gone to nursery school.

Between two and four, often reaching a peak at three, there is a period of negativism or resistance to adult direction, which accompanies the child's increasing sense that he isn't a baby any more. He wants to be his own boss.

Among nursery-school children, aggressive behavior, fighting, bragging ("I can climb higher than you can."), threatening ("I'll chop your head off."), are familiar everyday experiences. The amount of conflict may vary with the situation. In a group directed by a tense, unsympathetic adult, or with too many children in too small a space, with too few wagons and tools to go around, more fighting may be expected than in a group led by a friendly adult, or housed more spaciously with plenty of equipment.

Similarly, sympathetic and cooperative behavior will appear in relation to the warmth of the adult, the security of the children, and the occasion for it. The most dependably sympathetic child in one group became aggressive when her ego was threatened by teasing from other children.[8]

Facilitating the child's expanding sense of self is an increase in dramatic identification with roles appropriate to his sex, and in the range of spontaneous relationships which he is able to sustain in a group, helping, bossing, submitting, sharing, as occasion demands. From school age on, he grows in ability to sustain a defined part in a clearly structured game: to be "it" in hide-and-seek, to be the pitcher in baseball, involves a degree of ego security and clarity about one's relation to the group, as well as perceptual grasp of a complex situation, beyond what the four-year-old can handle.

In this school-age period overt resistance to adults, characteristic of the small child, has led to overt cooperativeness accompanied to be sure by surreptitious outlets for hostility behind the fence or in attenuated grumbles. Not only is authority accepted, within limits, but social security, even prestige, may lie in the boast "my Mom brings us up right." Perhaps the comics and movies, as well as increasing opportunity to bully younger or weaker children, and open fighting with one's peers, all help to drain off the rebellion against coercion which was so keenly felt by the younger child.

Ability to participate in organized games lays the groundwork for membership in larger groups, so that by ten or twelve membership in large Scout groups or attendance at camp is a normal part of many a growing child's experience.

At this period of expanding sense of self—acute at seven, when children compare likes and dislikes,[9] rights and

[8] *Cf.* Part V, section 4, of this volume.

[9] B. Biber and others, *Child Life in School* (New York: E. P. Dutton & Co., 1942).

wrongs, and criticize the nonconformist —the deviant child or the member of any minority group, national, physical, mental or economic, may feel his deviation most keenly. How he weathers the accusation "You're dumb," "You're a sissy," "Your father's just a janitor," "Your mother's hair is kinky," "Your grandfather talks Jewish," at the name-calling stage may have a lot to do with the place to which he feels entitled in any group. Aware of the importance of these early feelings of adequacy or inadequacy and of belonging or not belonging in relation to participation in a democracy, alert and sensitive teachers help children to appreciate *values in differences* and *turn deviations into assets*.

The fact that hostile, aggressive behavior between children is directly related to the child's experience of aggression from the adult is clear in the studies of autocratic and democratic atmospheres carried out by Lewin [10] and his associates, and in the studies of domination and integration contacts by Anderson,[11] as well as in clinical studies of problem and delinquent children such as those of Aichorn,[12] Healy,[13] etc. Conversely, the fact that moral, socially minded or "right" behavior is intimately bound up with a positive valuation of or identification with the adult is shown by Piaget [14] and Lerner [15] in studies of the moral reasoning of the child.

However, parents alone are not solely responsible for character formation, or the development of socially sanctioned behavior. As Hartshorne and May [16] long ago demonstrated, such traits as honesty become increasingly consistent where home and school life reinforce one another, and correspondingly undependable where a child is growing up in an inconsistent or conflicting environment containing one set of standards at home, and a different one at school. Thus it is not surprising that in delinquency areas, such as these intensively studied by Shaw,[17] a high percentage of child misbehavior will be found.

The period between preschool and adolescent emotionality is called the latency period by Freudians. Indeed both self-role and sex problems are relatively submerged in this period of neighborhood and school gangs, clubs, and chums. Adult authority for the time being is accepted on a basis of truce, to be challenged again at adolescence when the child must somehow wrench himself from a relationship of dependence to one of independence, leading to maturity. Sex interest has left the level of naïve curiosity characteristic of preschool years and excited exploration, renewed in adolescence, is generally released through indirect outlets of dirty stories, teasing the opposite sex while maintaining rather rigid sex groupings, and surreptitious and generally secret or unsocial sex experimenting. Social excitement is directed toward the athletic leader or the child whose physical, dramatic, social or intellectual skills give him the respect of the group. At this level the athletic and tomboy girl may be most popular, only to lose status

[10] *Cf.* Part VII, section 4, of this volume.

[11] H. H. Anderson, "Domination and Social Integration in the Behavior of Kindergarten Children and Teachers," *Genet. Psychol. Monog.*, 1939, XXI, 287–385.

[12] A. Aichorn, *Wayward Youth* (New York: Viking Press, 1935).

[13] W. Healy and A. Bronner, *New Light on Delinquency and Its Treatment* (New Haven: Yale University Press, 1936).

[14] J. Piaget, *The Moral Judgment of the Child* (New York: Harcourt, Brace & Co., 1932).

[15] E. Lerner, *Constraint Areas and the Moral Judgment of Children* (Menasha, Wis.: Banta Co., 1937).

[16] H. Hartshorne, M. A. May, J. B. Maller, and F. K. Shuttleworth, *Studies in the Nature of Character* (3 vols.; New York: Macmillan Co., 1930).

[17] C. Shaw, *Delinquency Areas* (Chicago: University of Chicago Press, 1929).

when, during the changes of adolescence, boys turn their attention to the feminine and alluring girls, and girls themselves compete in charm rather than in terms of physical and intellectual skills. Among boys at this stage prestige continues to rest largely on physical prowess, but status changes during adolescence as the qualities of being a good dancer, or other abilities reflected in the capacity to be a good class officer, executive on the school paper, etc., emerge as important also.

With the new importance of status in one's own group which accompanies adolescent weaning from dependence on parents, heightened insecurities regarding the opinion and approval of one's own age group may develop. Zachry [18] and others have pointed out the desperate importance of conforming in dress, customs, activities at this age and the misery that can attend pimples, lack of the right clothes or entrée, or other shortcomings or deviations from the group pattern. Sharp cleavages between adult standards and those of the young adolescent group over social freedom, especially about going out at night, dress, cosmetics and heterosexual behavior, are frequent in our culture. In some groups such cleavages may be part of a picture of intense emotional conflict between adolescents and adults, accompanied by stormy or depressed adolescent reactions. In her account of coming-of-age in Samoa, Margaret Mead [19] shows how little of this appears in a culture where ego and sex patterns have been handled with more freedom during the period of socialization and growth of the child.

To summarize, the pattern of social development in our culture proceeds from dependence upon the mother during infancy, to gradual widening of social contacts and responses; from increasing differentiations of social behavior during the preschool period when the child is with other children, through a period of formalizing of social behavior during the school years with their organized games and clubs, and a final period of new exploration which accompanies the new formalities of adolescence, leading to adult independence and participation in the activities of family and community. The emotional foundations of different aspects of adult social participation are thus laid at different times. Basic capacities for rapport, love, and ease with people have their roots in earliest infancy. The character of adult relations with people, whether spontaneous or rigid, may have been shaped by the child's response to rigid or free training during the early years. The adult's ease in social groups of different kinds may be in part at least the result of the security or anxiety developed in relations with other children during the increasingly group-minded years of school. Attitudes toward other race, religious, and economic groups will at the adult level have traces of early experiences of scapegoating, or of respect for individuals, fostered by family, school, and neighborhood atmospheres. The capacity to participate in democratic government, as compared with the need to achieve power and wield it fascistically, will be the result of the whole complex social experience of the individual, of frustration or happiness in the family group, feeling of respected membership, or being excluded from school and neighborhood groups, as well as feelings of respect for the rights of others and sympathy for others which are experienced and fostered as the accepted mores of the group.

Techniques of Socialization and Discipline

Current psychology and sociology look upon patterns of behavior as mores

[18] C. Zachry, *Emotion and Conduct in Adolescence* (New York: D. Appleton-Century Co., 1940).
[19] *Cf.* Part I, section 2, of this volume.

sustained by the sequences of emotional experiences of the individual in the group, not as patterns which reproduce themselves mechanically by a process of contagion or imitation.

Observers of various other cultures, for instance that of the Eskimo, have commented on the absence of any form of corporal punishment as a tool of socialization of the child. In keeping with the variety of culture patterns already noted, there are many different ways of enforcing parental sanctions: spankings, deprivation, rewards, approval, giving and withholding of affection.

Among certain groups one method is in disrepute while among others a different method may be criticized: progressive educators generally decry any use of force, while psychoanalysts are less concerned with the specific technique than with the attitude of the adult and the result for the individual child, especially with respect to the question whether the child has learned his lesson without excessive guilt feelings or anxiety which would produce general inhibition. Similarly, psychoanalysts and some other clinicians note that some well-intentioned methods which saddle the child with too great a burden of decisions to be made, may not produce such good results as guidance which relinquishes responsibility to the child more gradually. Since the parent and teacher represent the child's first symbols of social control, it is pointed out that control which stimulates rebellion or resentment and hostility is likely to be at a high cost to society later, while a smaller amount of control administered in a way which can be accepted by the child is more likely to produce a genuinely socialized person. The character of discipline itself is only part of the story, of course, the whole context of the child-parent relationship or of the child-school relationship being important in determining the child's acceptance of socializing measures.

Authority relations pursue different sequences, depending upon the personality patterns of the parents, the intimacy of the family structure and the assumptions of the parents regarding discipline at different growth-stages. Initial rigidity regarding infantile schedules and training may be followed by rigidity regarding training and manners at the preschool stage. Similarly, the attitudes toward babies may be very casual. Then they may be expected to "grow up" more quickly than they can when they get to school. Areas of constraint and of independence or freedom may not only vary from one family to another at the same stage but within the same family at different stages. As the child goes to school, however, his world expands to include contacts in the neighborhood not only with other children but with other adults in grocery, drug and dry-goods stores, with teachers, doctors, nurses in hospitals, ministers; thus he gets material to make comparisons which give him a broader base for further accepting or rejecting the authority patterns to which he has been exposed. Secret clubs or gangs give an opportunity for the small fry to exchange notes on the grownups; comics, like the fairy tales of former generations, offer "release therapy" and a safety valve for the bottled feelings of irritation against the coercions of unreasonable adults.

Control of Social Behavior

In contrast to the "determinism" of both environmentalists and geneticists, who are primarily concerned with the history of patterns of social behavior, are the groups interested in *redirection* of behavior. Some make use of release therapy (D. Levy [20]); others give specific training in confidence, initiative, tolerance

[20] D. Levy, "Release Therapy in Young Children," *Psychiatry*, 1938, I, 387–390.

of failure (Page,[21] Jack,[22] Keister and Updegraff [23]) or psychodramatic training in spontaneity (J. L. Moreno [24]). Some emphasize leadership or devise specially planned groups like Freud and Burlingham's [25] "institutional family" to promote the happiness and adjustment of children, or the democratic group structures of Lewin, Lippitt, and White,[26] which result in decreased aggressiveness and increased cooperation. L. B. Murphy's [27] accounts of space, equipment, age, structure, and teacher-personality as factors in group organization which affect sympathy and aggressiveness, and H. H. Anderson's [28] studies of domination versus integration in teacher methods also help to show the importance of here-and-now forces in the life-situation.

It is only in books that principles of socialization come one at a time; in life a child's social self is being shaped by conditioning, suggestion, imitation, identification, reaction formation all at once. The hostility of his own age group and suggestions or punishment from his teacher may not outweigh "what my father said," or a defensive pattern developed in reaction to father's discipline.

Deviant Behavior

In our culture, behavior which deviates from the social norm is most disturbing to adults, partly because well-brought-up children are in themselves a source of gratification to the egos of their parents (and the converse is even more true) and partly because the assumption that the child is father to the man leads to great anxiety about whether "he'll be like this when he's grown up." Nervousness and "difficult" behavior have been studied extensively and generally found to be due to emotional problems in the family: overprotection (D. Levy [29]), rejection and inadequate love (L. Lowrey [30]), marital tensions (D. Baruch [31]), excessive movement restraint [32] and inadequate sucking (D. Levy [33]), have been demonstrated to be related to problem behavior of children. Family tradition (E. W. Burgess [34]), parents' educational techniques (C. Bühler [35]), many specific aspects of their behavior such as tendencies to be autocratic or democratic, warm or cold (H. Champney [36]) are un-

[21] M. L. Page, "The Modification of Ascendant Behavior in Preschool Children," *Univ. Ia. Stud. Child Welf.*, 1936, XII, No. 3.

[22] L. M. Jack, "An Experimental Study of Ascendant Behavior in Preschool Children," *Univ. Ia. Stud. Child Welf.*, 1938, XV, No. 4.

[23] *Cf.* Part VI, section 3, of this volume.

[24] J. L. Moreno, "Who Shall Survive?", *Nerv. Ment. Dis. Monog.*, No. 58, 1934.

[25] A. Freud and D. T. Burlingham, *Infants without Families* (New York: International University Press, 1944), p. 128.

[26] *Cf.* Part VII, section 3, of this volume.

[27] L. B. Murphy. *Social Behavior and Child Personality* (New York: Columbia University Press, 1937), ch. 4.

[28] H. H. Anderson, "Studies in Dominative and Socially Integrative Behavior," *Am. J. Orthopsychiat.*, 1945, XV, 133–139.

[29] D. Levy, *Maternal Overprotection* (New York: Columbia University Press, 1943).

[30] L. Lowery, "The Family as a Builder of Personality," *Am. J. Orthopsychiat.*, 1936, VI, 117–124.

[31] D. Baruch, "A Study of Reported Tension in Interparental Relationships as Co-existent with Behavior Adjustment in Young Children," *J. Exper. Educ.*, 1937, VI, 187–204.

[32] D. Levy, "On the Problem of Movement Restraint; Tics, Stereotyped Movements, Hyperactivity," *Am. J. Orthopsychiat.*, 1944, XIV, 644–671.

[33] ——, "Thumb or Finger Sucking from the Psychiatric Angle," *Child. Develop.*, 1937, VIII, 99–101.

[34] E. W. Burgess and H. J. Locke, *The Family: From Institution to Companionship* (New York: American Book Co., 1945).

[35] C. Bühler, *The Child and His Family* (New York: Harper & Brothers, 1939).

[36] H. Champney, "The Variables of Parent Behavior," *J. Abnor. & Soc. Psychol.*, 1941, XXXVI, 525–542.

doubtedly interrelated, although with the exception of studies of southern Negro children (J. Dollard [37]) we do not have adequate accounts of the many-sided impact of total family structure on child personality.

2.

SOCIALIZATION AND ADOLESCENT PERSONALITY

By Allison Davis

Socialization is the life-long process through which the human organism learns a culture, or possibly several cultures. One of the subtypes of socialization is acculturation, which is the learning of a culture different from that of one's birth group. Socialization is not simply the process of learning the specific skills of tool-using, language, and social organization, but implies as well the learning of these cultural behaviors as they are defined by a particular society. During this process of learning cultural behavior, which extends from infancy to death, the human organism likewise must learn to adjust emotionally to the impact of these social controls as presented to him by his parents, older siblings, teachers, employers, and other cultural surrogates. This central characteristic of human social learning, namely, that human beings always learn their social behavior in some type of relation to other personalities, and therefore in an emotional context, is the crucial principle underlying any systematic effort to understand adolescent social and personal development. That is, every adolescent's social behavior bears the marks of his personal history in relation to his parents, his siblings, his play-group, and his teachers, as well as the imprint of the cultural controls.

It is clear, of course, that culture cannot be inherited genetically; none of it can be transmitted by the mere fact of birth into a certain family, social class, or race. All cultural behavior is learned behavior; it must be learned by each new human organism through the laborious processes of imitation, identification, competition, cooperation, and the other methods of social learning. At birth the organism is driven by simple biological tensions, such as hunger and pain, to learn the acts leading to a desired goal response of eating, or of removal of pain. From the time of weaning, however, and increasingly thereafter, he is taught to react to his biological tensions in socially defined ways. For example, a child in our society is trained to regard only certain meats and plants as edible, that is, as goals for his hunger. He must learn, furthermore, that he cannot eat whenever he wants to (that is, he cannot go to the goal directly by the shortest route), but must accept the alternative response of eating at regularly appointed hours. The intricate sequence of actions which the socialized human being has been taught to substitute for the direct biological responses appears to be simply a longer route to the same biological goals, with lanes and hurdles to teach him that the responses may be obtained only under certain conditions, if he is to win acceptance in a particular group.

The learning of new habits after earliest infancy is always a slow and difficult

From *Adolescence, Forty-Third Yearbook, Part I* (Chicago. National Society for the Study of Education, 1944), ch. 11. Reprinted by permission of the author and the Society.

[37] J. Dollard, *Caste and Class in a Southern Town* (New Haven: Yale University Press, 1937), p. 502.

process of re-education because it involves the changing of old habits. Punishment is one of the most important methods used in our society to extinguish undesired habits and to impel the individual to new behavior. Most individuals, therefore, come to anticipate punishment in new learning situations; socialized anxiety thus appears as a constant mark left upon many individuals by the processes of their socialization. The aim of this chapter is to present evidence for the hypothesis that the successful socialization of the adolescent depends upon the degree of *adaptive*, or socialized, anxiety which has been instilled in him by his society. It is believed that the proper level of such socialized anxiety acts as a necessary push toward the attainment of the required cultural behavior, and through such attainment, to approval, prestige, and security in the adolescent's group.

The Systems of Social Rank

In spite of certain universal similarities (in language, dress, familial structure, and technical adaptations) which appear in our society, the conditions under which persons have access to fundamental biological and social goals are defined by a system of privilege. When this system is examined in detail, as it recently has been studied in New England and in the lower South by social anthropologists who lived in these communities for extended periods, it is found to be a system of socially ranked groups, with varying degrees of social movement existing between them. Each of these groups consists of people who associate or may associate freely with each other, but who do not associate freely with the groups "above" and "below" them.

In our society an individual is born into a family which is a member of such a socially ranked group. His family's economic, social, and sexual participation is largely limited to its own group. He is controlled by his social position, not simply in the formation of his early habits, but throughout his life. He is controlled by the pressure which he receives from groups above and below him to restrict his participation, that is, to "keep him in his [social] place." The effect of such pressure is usually to prevent him from learning new habits, and thus from increasing his privileges. Barriers upon interclass participation thus set up differential reinforcements for each group; the nature of these social reinforcements is ultimately determined by the kind of privileges (goal responses) which the group is allowed to attain.

The systems of social rank which exist in American society differ in degree; that is, they differ with respect to the opportunity allowed an individual living within the system to move into a stratum other than that in which he was born. The most effective ways to restrict intergroup movement in any Western society are (1) to prevent the individual from marrying out of his birth group, and (2) to restrict his opportunities to earn money.

There are three of these broad systems of social rank in our society, each of them tending to restrict the cultural, and therefore the learning, environment of the children in these strata. These cultural systems are those of the (1) *social classes* and (2) the *ethnic or foreign-born groups*, both of which are less sharply stratified than (3) the *color castes*. It is possible at present for a child born into a *social class*, or an *ethnic group* having low status, to move into a "higher" status and a "higher" cultural level by learning the necessary behavior and displaying the necessary symbols. *Color castes* in America, however, allow no status movement at all out of one's birth group. Such status differentiations as these have the effect, in varying degrees, of defining and limiting the developmental environment of the child; if people of different cultures cannot associate freely, they cannot learn one another's special form of the American

language, methods of child-rearing, manners, morals, and social and psychological goals.

In this chapter the differential socialization of adolescents in America will be considered chiefly in terms of the differentiated cultures of social classes. These cultures are of chief interest among those of American status groups, because they are found in basically similar form within most ethnic groups and color castes. Native whites who are lower class, and native Negroes, Chinese, or Spanish-Americans who are lower class are much the same in culture and in social psychological instigations. The same crosscutting characteristic of social-class behavior has been observed for middle-class native white and native Negro Americans. Upper-class culture does not exist in the same form in the white and Negro groups, since there is as yet no Negro aristocracy in the sense that there is a New England or southern white aristocracy. The same reservation has to be made with regard to the foreign-born colonies of European whites in American cities; they have not differentiated a distinctive upper-class culture as yet. On the other hand, the old, native-born Spanish-American and Chinese families constitute an aristocracy with a well-defined culture.

So strong are the class cultures that they tend also to obliterate differences in the national cultures of foreign-born white groups in this country. That is, the prestige value of being (1) an American and (2) a middle-class person is so great that, unlike minorities in Europe, our minority groups tend rapidly to extinguish their foreign-born culture and social motivation and to learn those of that particular American social class in which they can win acceptance.

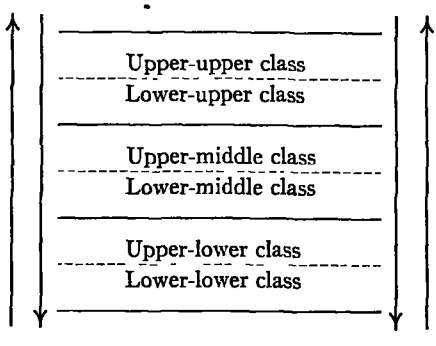
Social Classes as Learning Environments

Intensive field studies of intimate social participation between the inhabitants of small cities in New England, the deep South, and the Midwest have revealed several major levels of participation and culture. These social strata are developed and recognized by the inhabitants upon the basis of types of language, manners, mores, rituals, economic traits, and other differentiated symbols of rank. In the study of intimate social participation, it is found that distinctions of social-class position are always made upon a basis of possible social intimacy, as in the following quotations: "They don't fit in with our bunch." "We don't know her family: I never saw her socially in my life." "They are ordinary people like us; you feel at home with them." "They are the big shots, the society folks." "I wouldn't let my children play with that woman's; they are ignorant, common, dirty people."

An individual's class status is determined by his social clique. He is no higher nor lower in the status scale than his intimate acquaintances. The social clique is a group of individuals who have such intimate relations as are expressed by visiting, eating, and drinking together in the home and by the other rituals of informal social participation. The basis of the social clique is equality of the members in social status and similarity in culture. Intimate social cliques may contain from two to about thirty persons. Social cliques and families are the basic units of a social class. In the family and in his social clique the child learns his class behavior and goals. As a learning environment for children and adolescents who wish to "rise in the world" (attain a higher class position), the social clique is an even more important training context than the family. His family can teach him only the behavior and motivation of its own class; a social clique of higher status, however, provides him with the necessary models for cultural imitation.

There is no uniform number of social classes in American communities. The

number and complexity of social strata vary according to the age and economic complexity of the community and according to the rural, urban, and ethnic composition of the population. In the small cities studied, the number of major classes identified has been three, each having two subclasses. The three major strata are ranked upon the basis of their prestige value in the thinking of the inhabitants of the communities; they may be termed upper, middle, and lower classes. Within each of these major status groups and cultures, there are also an upper and a lower status. Thus, there exists a middle class, differentiated into an upper-middle and a lower-middle class. The accompanying diagram is meant to represent the six cultural strata in such a small city. The arrows pointing upward and downward, in relation to the horizontal strata, indicate that the social class system in this country still allows individuals to improve or to worsen their class position.



Diagrammatic representation of the ranking of social classes in a small American city

The manner in which concepts of appropriate socialization and of personality goals vary according to the status of a given group in the local community has been described recently by social anthropologists and social psychologists. They have used as their principal field-technique the intimate, unguided interview, obtained by an individual who has participated for a long time in the life of the community. Their subjects have included white adults and white adolescents of all the ethnic groups. In addition, they have carried out, with the aid of psychiatrists, intensive studies of the life histories of Negro children and adolescents. The views presented in this paper concerning the processes of human socialization are largely the results of these studies of American communities, their methods of socializing their members, and the history of these processes in the personality development of specific individuals.

Within each of these participation levels, with their cultural environments, a child learns characteristic behavior and values concerning family members, sexual and aggressive acts, work, education, and a career. A child of middle status, that is, acquires different social goals, different needs, different codes of right and wrong, and he experiences different psychological rewards and punishments from those learned by a child of either upper or lower status. These restricted learning environments are maintained by powerful and firmly established taboos upon social participation outside of one's status-level. Such pressures to keep the individual, of whatever ethnic group or social class, in his social "place" are exerted not only by those above him, but also by those below him and by those in his own status. Thus, well-defined cultures are developed and maintained by means of restricted social participation between groups or between individuals of different social status.

Socialization and Anxiety Motivation

The child and adolescent in our society are socialized within a series of personal relationships characterized by rank. These hierarchical relations include, among many others, those between parent or parent-surrogates and child, between teacher and child, and between children themselves, of different ages and

sexes. Thus, the early socialization of the American child occurs largely in relationships where he is subordinated upon the hierarchical principles of inferiority in age, skill, or experience. These relationships of rank, whether between father and son, teacher and pupil, middle-class individual and lower-class individual, are maintained apparently by socially typed motivations and goals which lead the individual to strive for those reinforcements which are considered proper to his status. In the normal range of personalities, this striving is maintained, it appears, by adaptive forms of socially inculcated and approved anxiety.

The intensive study of normal personalities leads inevitably to the recognition of the tremendously vital role of this type of socialized anxiety in the integration and direction of the personality, notably in the development of individuals of middle status. One of the certain gains for social science, in the recent studies of normal individuals living in their social contexts, has been the discovery that many concepts of personality economy developed by psychopathology do not hold for individuals in our own culture who are not mentally ill. The tendency of the psychopathologist to extend the concept of the neurotic, nonadaptative, irrational type of anxiety, for example, to all anxiety has been a dangerous generalization. In the same way many other concepts of maladaptive functions, based upon clinical study of the delinquent, the criminal, or the mentally ill have been applied wholesale to the analysis of the personality dynamics of normal people by mental hygienists, psychiatric case-workers, and by other students of personality development. These supposedly symptomatic traits include, among others, such motivations as hostility, guilt feelings, intimidation, inferiority feelings, chronic frustration, as well as anxiety.

The fact is, however, that all of these motivations not only appear in the normal range of human personalities in American society, but these instigations may be all culturally useful and may be integrated in some form into the adaptive behavior of the well-adjusted and socialized child or adolescent. For example, most young children of middle-status families are trained in the basic cultural forms with regard to property, exploration of the adult world, and aggression largely through those feelings of shame, of age inferiority, of guilt, and of anxiety which are instilled by the parents and other adults in accord with the necessary modes of child training *in a society like that of American middle class*. Even aggression and hostility must be taught to the child through culturally approved forms. With regard to overt aggression, the middle-class boy must learn, for example, (1) to fight when attacked by another boy, (2) not to attack a boy unless he has been struck, (3) not to attack girls or supervisory adults under any circumstances, but also (4) not to withdraw when in a normal, approved competitive situation. A child without the culturally approved, adaptive type of aggression in a competitive and status-structured society like ours is himself abnormal.

Equally important to effective socialization in our society is the maintenance by the individual of a certain level of anxiety with regard to the attainment of the required behavior for his status. This socialized anxiety plays a major role in propelling him along that cultural route prescribed by his family, school, and later by adult society at his cultural level. The development of adaptive, socialized anxiety in middle-status life is all the more essential because the social and prestige rewards of this status must necessarily be postponed during the prolonged training of the child and adolescent for high skills and complex responsibilities. In the meantime, anxiety which threatens the individual with the loss of both present status and of future gains

must serve as the basic instigation in his socialization.

This view of the essential function of anxiety as a learned motivation in normal social development has evolved slowly.[1] Both preconceptions of psychologists and cultural bias against recognition of the actual use of fear and shame in child training have impeded its growth. In 1890 William James and his contemporaries imagined anxiety to be instinctive, biologically useful in most instances, phylogenetically determined, and not learned. Students of the conditioned stimulus also later regarded certain types of anxiety, such as the "fear of loss of support," as innate, but have recently abandoned this view. They now conceive of anxiety as a conditioned response made to stimuli and cues which have been associated with pain. "Anxiety," according to Professor O. H. Mowrer, "is thus to be regarded as a motivating and reinforcing agent similar to hunger, thirst, and the many other forms of discomfort that harass living organisms, which is, however, presumably distinctive in that it is derived from and based upon anticipation of these other, more basic forms of discomfort."

Socialization and the Cultural and Private Personalities

It appears to the writer that, in order to perceive clearly the socially adaptive functions of anxiety, one must distinguish between two major aspects of the human personality. They are (1) the individual or private aspects of personality, and (2) the culturally typed aspects of personality. Much of the apparently hopeless disagreement among students of personality arises from their failure to recognize the fact that one of the two systems of behavior which constitute personality has its origin in cultural demands, while the other has its origin in both the genetic structure of the organism and its individual history. This latter, the private or idiosyncratic personality, is rooted in organic traits such as irritability, growth tempo, fatigue rate, etc., which may differentiate between infants during even the first weeks of life. It is also a function of the emotional adjustments of the individual throughout his whole development; it includes those traits and adjustment devices which *distinguish between men trained in the same culture, but having different histories in the processes of their cultural induction.*

On the other hand, that system of behavior—or thought, perception, affect, and values—which is typed by the culture must be thought of as a second gradient of personality differentiation. This aspect of personality appears as soon as a baby begins to receive training in those nursing, sleeping, and cleanliness habits which are required by *our* society (but not by *other* societies). In American society the cultural forms which a child must learn are extremely complex and numerous. They begin at birth, and include the basic conventions and taboos of the family, the sex groups, the age groups, the social classes, ethnic cultures, color castes, and so on. Freud and the psychopathologists have, of course, made many grievous errors with regard to the cultural basis of personality, having attributed to either phylogenetic or instinctual origins certain emotional patterns which, as social anthropologists have demonstrated, actually vary tremendously through different societies of the world.

Students of society have themselves confused our studies of personality by accepting the psychological dogma that the private aspects of personality are emotional and irrational, while the cultural aspects are rational, simple, and

[1] O. H. Mowrer, "Anxiety Reduction and Learning," *J. Exper. Psychol.*, 1940, XXVII, 497–516, and O. H. Mowrer, "A Stimulus-response Analysis of Anxiety and Its Role as a Reinforcing Agent," *Psychol. Rev.*, 1939, XLVI, 553–565.

therefore more superficial. When one studies any given individual in his society, however, it becomes clear that both the private and the cultural motivations are emotionally based. Fear, hate, anger, and anxiety are generated and organized around the social roles required by age, sex, family, and class status just as they are rooted also in hunger, thirst, or sex drives. To illustrate: a child may experience anxiety (i.e., anticipation of punishment or loss of approval) either because he is being required to learn toilet training (a cultural behavior), or because he fears that his baby brother will take his mother's love (a private behavior). It is likely that anyone who observes a child carefully will hesitate to term one of these types of anxious situations more fundamental than another in the child's view. The first source of anxiety—cleanliness training—is systematically instilled by his society in the form of parents, nursemaids, and siblings; it is essential to successful social development in American society, and it remains throughout life. The second form of anxiety, the child's fear of being replaced by the younger sibling, is private and often nonadaptive. Both types of anxiety *may* become abnormal, but the first type always has the initial advantage of being socially approved, and therefore of leading to reduction of guilt and fear, if the training is learned.

What I have called the *private* personality is perceived in that behavior of an individual which distinguishes him from other individuals socialized in the same culture. For example, one Samoan is not like all others; in his private characteristics he may be much like this or that fellow whom we have met, or fought, or been friendly with in our own parts of American society. Therefore, persons who show relatively little anxiety and who make new adjustments to their bodies or to their cultures easily may be distinguished upon this personal basis from other individuals, of roughly the same social training, who exhibit great difficulty in making new adjustments and experience more severe anxiety. *Although the private personality is in part a result of organic, genetic, and maturational factors, it is in some respects the result of the accumulation of learning and of blocks to learning during the processes of the individual's socialization.* This diversity in adaptive disposition between members of the same culture arises in part also from the differences in method, timing, and emotional environment, incident to the training of these individuals. In this sense and to the extent that personality is affected by these factors, the private personality may be regarded as the more or less constant *individual marks* left upon behavior as it develops in the process of socialization.

With regard to the cultural aspects of personality, it must always be remembered that social roles are extremely complex in American society. For example, the same individual female organism has to learn the social behavior, sentiments, and values proper to a daughter, a sister, a wife, a mother, and a grandmother. In each of these roles she is also required to act differently toward a male relative and a female relative.[2] The ease of a personality in achieving such new learning as this depends not only upon the nature of the anxiety motivation, but also upon the degree of similarity between previous cultural experience and the new roles. For example, it would be quite hopeless for even the most adaptable child to play a man's role, or for a lower-class person, except perhaps in the dramatist's story, to adjust fully to upper-class preoccupations with genealogies, fox-hunting, and leisure-type conversation.

[2] W. L. Warner, "The Society, the Individual and His Mental Disorders," *Am. J. Psychiatry*, 1937, XLIV, 275–284, and W. L. Warner and P S. Lunt, *The Social Life of a Modern Community* (New Haven: Yale University Press, 1942).

Adolescent Socialization and Normal Anxiety

In adolescents of any cultural level in our society, socialized anxiety is a powerful drive. It is derived from a long and complex series of training situations in which punishment has been invoked. In all social classes the overwhelming majority of parents depend upon threats, warnings, scoldings, withdrawal of approval, or physical punishment in their efforts to socialize their children. All of these techniques are designed to arouse anxiety or the fear and anticipation of punishment, if the desired social learning is not attained. Since any of these techniques implies to the child the loss of his parents' favor or approval (which in turn is associated with food, shelter, money, opportunity to study for a profession, etc.), they all arouse in him the anticipation of punishment, if the expected behavior is not learned. As the middle-class child comes into the status of an adolescent, the level of his socially stimulated anxiety becomes higher, for the pressure upon him of his parents, social clique, and teachers for attainment in respect to manners, preparation for work, and cross-sexual restrictions becomes greater. As the adolescent becomes more keenly aware of the need for social acceptance, for a career, and for a "good" marriage, as he sees the goals of his group in sharper perspective, he becomes more amenable to social punishments. He also sees more clearly the goal of *social prestige* in the school and in the social group with which he participates or hopes to participate. In adolescence, the lower-status individual begins to feel the stigmas of lower status much more keenly; children of families which have begun to "fall" in class status see their dilemma more vividly and become more careful to avoid behavior and situations which will reveal their weak status position.

All of the foregoing changes in social behavior and goals at adolescence indicate an increased striving for prestige and are maintained partly by the anxiety to avoid social punishment and partly by the drive to attain the rewards of social prestige. *Anxiety of this type, therefore, is a most effective motivation toward social learning because it leads to reward. In our social system the instrumental acts to attain prestige rewards are acts of striving.* Thus, anxiety is mobilized not only by the anticipation of punishment if the required behavior is not learned, but by the desire not to be deprived of reward. *It is this striving for reward, for status, this uneasiness lest the reward be not attained, which constitutes the adaptive social function of anxiety. Adolescents with a strongly developed social anxiety, therefore, usually strive for the approved social goals most eagerly and learn most successfully.* In this sense the most fully socialized individuals are those with the most effective, socially directed anxiety. This is the characteristic of anxiety as a socializing agent which Freud did not describe. He thought of anxiety in terms of anticipation of danger and punishment, and therefore in terms of fear and hostility.

An intensive study of the life histories of normal children and adolescents in our society, however, makes it clear that the behavioral manifestations which teachers and psychologists would regard as "anxious" are associated with striving behavior. Anxiety leads to striving because only thus can anxiety be reduced to a tolerable level. Thus, it may be said that, in our kind of society, if a child wishes to be rewarded, he must learn to mobilize himself and to bear that degree of anxiety which will serve to make him strive most effectively for the goals of his group.

Lower-class culture, white or Negro, organizes adolescent behavior with regard to aggression, sexual relations, age roles, and family roles, to mention only a few of the basic types of relationships, into patterns which differ radically from

those of middle-class adolescents.[3] In terms of motivation this means that the culture determines (1) what the goal-responses (the effective reinforcements or rewards of learning) are for a given adolescent and (2) the degree to which the goal-responses are available to him. With regard to a great many goals, what is rewarding to a middle-class adolescent is not at all so to a lower-class adolescent. What they fear, what they abhor, what they desire, what they crave, what they will work for, or fight for, what they consider valuable or sacred differ in almost every basic area of human relationships.

The aggressive behavior of adolescents is a crucial case in point. In middle class, aggression is clothed in the conventional forms of "initiative," or "ambition," or even of "progressiveness," but in lower class it more often appears unabashed as physical attack, or as threats of and encouragement to physical attack. In general, middle-class aggression is taught to adolescents in the form of social and economic skills which will enable them to compete effectively at that level. It may be full of personal hostility and insecurity, or it may be realistic and socially directed. The lower classes not uncommonly teach their children and adolescents to strike out with fist or knife and to be certain to hit first. Both girls and boys at adolescence may curse their father to his face or even attack him with fists, sticks, or axes in free-for-all family encounters. Husbands and wives sometimes stage pitched battles in the home; wives have their husbands arrested, and husbands try to break in or burn down their own homes when locked out. Such fights with fists or weapons, and the whipping of wives occurs sooner or later in many lower-class families. They may not appear today, nor tomorrow, but they *will* appear if the observer remains long enough to see them.

The important consideration with regard to aggression in lower-class adolescents is that it is learned as an *approved and socially rewarded* form of behavior in their culture. An interviewer recently observed two nursery-school boys from lower-class families; they were boasting about the length of their father's clasp-knives! The parents themselves have taught their children to fight not only children of either sex, but also adults who "make trouble" for them. If the child or adolescent cannot whip a grown opponent, the mother or father will join the fight. In such lower-class groups, an adolescent who does not try to be a good fighter will not receive the approval of the father, nor will he be acceptable to his play group or gang. The result of these cultural sanctions is that he learns to fight and to admire fighters. The conception that aggression and "hostility" are neurotic or maladaptive symptoms of a chronically frustrated adolescent is an ethnocentric view of middle-class individuals. In lower-class families in many areas, physical aggression is as much a normal, socially approved and inculcated type of behavior, as it is in frontier communities and in war.

There are many forms of aggression, of course, which are disapproved by lower-class as well as by middle-class adolescents. These include, among others, attack by magic or poison, rape, and cutting a woman in the face. Yet all of these forms of aggression are fairly common in some lower-class areas. Stealing is another form of aggression which lower-class parents verbally forbid, but which some of them in fact allow—so long as their child does not steal from his family or its close friends. The example of the adolescent's play group and of his own kin, however, is the crucial determinant of his behavior. Even where the efforts of the parent to instill middle-class mores

[3] Allison Davis and John Dollard, *Children of Bondage* (Washington: American Council on Education, 1940), and John Dollard, *Caste and Class in a Southern Town* (New Haven: Yale University Press, 1937).

in the child are more than half-hearted, the power of the street culture in which the child and adolescent are trained overwhelms the parental verbal instruction. The rewards of gang prestige, freedom of movement, and property gain all seem to be on the side of the street culture.

Like physical aggression, sexual relationships and motivation are far more direct and uninhibited in lower-class adolescents. The most striking departure from the usual middle-class motivation is that, in much lower-class life, sexual drives and behavior in children are not regarded as inherently taboo and evil.

There are many parents in low-status cultures, of course, who taboo these behaviors for their girls. Mothers try to prevent daughters from having children before they are married, but the example of the girl's own family is often to the contrary. At an early age the child learns of common-law marriages, and extramarital relationships by men and women in his own family. He sees his father disappear to live with other women, or he sees other men visit his mother or married sisters. Although none of his siblings may be illegitimate, the chances are very high that sooner or later his father and mother will accuse each other of having illegitimate children; or that at least one of his brothers or sisters will have a child outside of marriage. His play group, girls and boys, discuss sexual relations frankly at the age of eleven or twelve, and he gains status with them by beginning intercourse early. With sex, as with aggression, therefore, the instigations and goal-responses of adolescents who live in these different cultures are opposites. *The middle-class adolescent is punished for physical aggression and for physical sexual relations; the lower-class adolescent is frequently rewarded, both socially and organically, for these same behaviors. The degree of anxiety, guilt, or frustration attached to these behaviors, therefore, is entirely different in the two cases. One might go so far as to say that in the case of middle-class adolescents such anxiety and guilt, with regard to physical aggression and sexual intercourse, are proof of their normal socialization in their culture. In lower-class adolescents in certain environments, they are evidence of revolt against their own class culture, and therefore of incipient personality difficulties.*

The point which these considerations seems to make clear, and which seems borne out by many detailed life-histories of adolescents of each class, is as follows. The social reality of individuals differs in the most fundamental respects according to their status and culture. The individuals of different class cultures are reacting to different situations. If they are realistic in their responses to these situations, their drives and goals will be different. This basic principle of comparative psychology implies that in order to decide whether an individual in American society is normal or neurotic, one must know his social class—and likewise his ethnic culture. His social reality and, therefore, all his social drives, goals, and values, are determined by his culture. He may be quite poorly oriented with regard to middle-class culture, simply because he has not been trained in it and, therefore, does not respond to its situations. If his behavior is normal for lower-class culture—which clinicians, teachers, and guidance workers do not usually know—he may appear to them to be "maladjusted," "unmotivated," "unsocialized," or even "neurotic." In dealing with such cases, the reference points of social reality of the teacher or psychologist must be oriented with regard to the basic demands of lower-class culture upon its members.

Strength of Anxiety Motivation in Middle-class Adolescents

As Warner and Lunt[4] have shown by very detailed studies of behavior in

[4] Warner and Lunt, *op. cit.*

Yankee City, New England, and the Gardners[5] by careful analysis of family mores and child training in the deep South, middle-class people maintain, organize, and direct American life. The "small people" in the middle group are the backbone of our society; the "upper middles" are the brain and the eyes of the society. Almost all of the good things in American life, as we in education evaluate it, are the achievements of the middle-status persons: care of and pride in property, careful child-training with emphasis upon renunciation and sacrifice for future gains, long and arduous education, development of complex and demanding skills, working and learning one's way up in the complex processes of business, industry, government, church, and education—all of them administered, as Warner, Lunt, and the Gardners have shown, by the upper-middle class in the American status system.

The culture of the middle-status group, as analyzed by these observers, is found to be highly institutionalized; the church, the organizations, the school, the formal associations of all types are the basic integrating structures in their society. Along with this highly organized structure goes a marked emphasis upon *attaining*. As compared to both the lower- and the higher-status levels, then, the middle group is more highly organized and its members are more deeply motivated—by all institutions in middle-class—to *achieve*.

This cultural emphasis upon achievement arises largely from social insecurity: in lower-middle groups it arises largely from the fear of loss of occupation or respectability, which would plunge the family into lower-class life; in upper-middle groups, from the fact that, unlike upper-class people, upper-middles are ***not born to*** a secure status, but must achieve it in the face of social stigmas and punishment, if it is to be theirs.

The middle-status way, then, with its emphasis upon respectability and morality, upon property, money and other symbols of attainment, upon organizational ties which dramatize one's adherence to group goals, upon self-improvement through education, or book clubs, or art, and music clubs, and upon community improvement through the church, the civic organizations, and the school, this way of life which is so obnoxious to Bohemians, aristocrats and slum dwellers, is carried on by people who are culturally motivated to suffer, to renounce, to postpone gratifications in order to achieve. To propel the child along this apparently endless route of socialization—so that he may attain a physician's skills, let us say—the middle-status family uses pressures and goals which build anxiety. The child is taught by a well-defined and relatively severe training to strive for the expected or allowed age, sex, or class status, or to attempt to gain a higher age, or school, or social-class status. As Dr. and Mrs. Gardner observed in Old City in the deep South, white children of middle-status families are constantly being required by their parents to conform to the elaborate pattern of behavior which their culture demands. Even at the infant level, before the age of two years, persistent punishment, or disapproval, or other means of arousing shame, guilt, or anxiety are employed systematically to establish weaning and cleanliness, and respect for adults and for property. In adolescence the middle-class (especially the upper-middle class) white child was guided, controlled, supervised by his parents, the Gardners found, with regard to the following behavior: the time and etiquette of eating, use of the house and car, attendance at church or Sunday school, selection of his social clique, entertainment of his clique at home, economic matters, attendance

[5] Allison Davis and Burleigh B and Mary R. Gardner, *Deep South* (Chicago: University of Chicago Press, 1941), chapters on "The White Upper-class Family," "The White Middle-class Family," and "The White Lower-class Family."

at motion pictures and sometimes the pictures to be seen, school lessons, grades, and deportment, together with many other areas of control to which adolescents of the lowest status are not subject in their family relationships. As the child goes through adolescence, furthermore, he is gradually inducted by parents, teachers, and age-mates into the adult pattern of class behavior. Near the end of high school or at the beginning of his college career, he is urged to begin serious study and preparation for an occupation which will maintain the family's status or improve it. A girl is oriented toward either a "decent," "good," or "brilliant" marriage or a skilled or professional occupation.

In any case it seems clear that the sustained striving, the difficult habits of impulse control and organic deprivation which these long educational and socializing processes require (such as the loss of sleep, relaxation, and perhaps adequate food upon the part of the graduate or medical student who is largely dependent upon his own earnings), this striving is motivated by the adaptive anxiety established by the individual's previous family, school, and status relationships. To win the mother's approval or the teacher's praise, or to win prestige in the larger society, the individual is willing to bear a certain level of anxiety, which instigates him to strive for the prestige or the approval relationship. *With regard to upward status-mobility, in the sense of climbing the "democratic ladder," furthermore, this anxiety motivation is entirely realistic and rational in our kind of a society. It is experienced both as an urge to flee from the deprivations of low status and as a pull toward the greater biological and social security of high-status persons.*

In order to understand the prestige motivation of individuals of middle status, then, one must remember the severe social and biological punishments associated with low status. The anxiety which middle-status people learn is effective, first because it involves the threat of loss of present status, and secondly because it leads, as the individual may plainly see in "successful" persons, to the rewards of power, of social prestige, and of security for one's children.

Now, it is a difficult task to socialize in the middle-class way of behavior those great masses of low-status children who form the bulk of the schools' populations. Yet this is what American public education really attempts. We must learn, therefore, how to motivate low-status children and adults, bound by their own many-sided culture in the family, church, and organizations, by means of socially adaptive forms of anxiety. In order, however, to make low-status children *anxious* to work hard, study hard, save their money and accept stricter sex mores, our society must convince them of the *reality* of the *rewards* at the end of the anxiety-laden climb. To the upper-middle-class child, who learns well and climbs fast, the prestige rewards appear large, certain, and relatively near. Our society cannot hope, therefore, to educate the great masses of lower-class people in any really effective manner until it has *real* rewards to offer them for learning the necessary anxiety.

3.

EDUCATIVE EFFECTS OF SOCIAL ENVIRONMENT AS DISCLOSED BY STUDIES OF PRIMITIVE SOCIETIES

By Margaret Mead

The competence and possible contribution of applied anthropology lie in the application of scientific findings to social planning, to the delineation of trends in education which may be expected to exert given effects on the behavior of all the pupils who are exposed to them. When the educator wants to know how to explain Jimmy's inexplicable loss of interest in his work after he had given promise of a brilliant scientific career, he turns to psychiatrists. When the educator wants to know what effects universal nursery-school education might have on the adjustment of Americans at adolescence, he looks for assistance and insights to the professional students of culture.

We have, at present, two developing sources of knowledge of the interplay between the human organism and the social environment: (1) studies of primitive cultures, and (2) individual life histories. The first is contributed by the anthropologists, the second by the psychiatrists, while both methods are used in various modified forms by the sociologists.

I would distinguish three significant ways in which primitive cultures differ from our own culture and which complicate the problem of the direct transfer of conclusions from one to the other: (1) Primitive cultures are homogeneous, while our culture is heterogeneous. (2) Primitive cultures change very slowly, so that the repercussions of change within the individual lifetime are almost indistinguishable, while our culture is changing so rapidly that change is one of its most conspicuous characteristics. (3) The stocks from which the populations of primitive societies stem are relatively less diversified than is the hereditary background of the population of a modern city. The implications of these three conditions have been differentially attended to in the attempts to apply social anthropological findings to our own society. The point of heterogeneity versus homogeneity has usually, I believe, been allowed for by anthropologists, but it has, perhaps, been insufficiently allowed for by members of other disciplines who have used anthropological material. The problem of the genetic constitution of these primitive groups has never been thoroughly explored and actually waits on more precise conceptions of constitutional type before it can be profitably attacked. For the present it is sufficient to issue the warning that the extent to which individuals of a high degree of common ancestry can be molded to one type of behavior may not be used, without reservations, as a basis for assertions concerning the power of the molding process when it is exerted upon individuals of highly diverse hereditary lines.[1]

From Ernest W. Burgess and others, *Environment and Education* (Chicago: University of Chicago, Supplementary Educational Monographs, No. 54, March 1942), pp. 48–61. Edited by the author with permission of the publisher.

[1] Although Kretschmer's classifications in *Physique and Character* (New York: Harcourt, Brace & Co., 1925) are open to many other forms of objection, it is also worth pointing out that his theory of correspondence between physical type and personality type was developed on a relatively homogeneous population and could not, therefore, be adequately and directly tested by checking on the exceedingly diverse populations of mental hospitals in the United States.

Culture and Individual Differences

I have selected as the main theme for this paper one subdivision of the difference in the rate of social change. Before proceeding to a detailed discussion of this special point, however, I should like to discuss briefly the heterogeneity problem. There has been a tendency to define *culture* as the abstract which dealt with the similarities in the traditional behavior of members of the same group. Use of the word "similarities" here tends to complicate the argument, particularly when our topic of discussion is the existence of different amounts of dissimilarities among the members of homogeneous and heterogeneous cultures. It involves us at once in the relegation of large bodies of behavior to some a-cultural, extra-cultural, or anti-cultural position. If two Zuñi Indians both plant prayer sticks for rain, their behavior may be referred to "culture"; but, if five children of American parents embrace different denominational faiths and economic statuses, such behavior is then referred not to "culture" but to "individual differences," and these individual differences are, in turn, referred to the specific life history, particularly the early childhood experience, of each of the five children (with due allowance for constitutional differences also).

In such a use of the term "culture" to cover only *similarities*, culture is handled as a descriptive name for a *body* of *traditional* behavior, rather than as a scientific abstraction. "Culture," as used by the social anthropologist, is an abstraction describing the *regularities* in the behavior of a group of individuals, when that behavior can be referred to a common experience, which has been socially transmitted, through the mediation of persons, symbols, documents, material objects, etc. Any *regularities* in the behavior of a number of individuals which can be so accounted for are cultural data to the anthropologist, whether the source of these regularities lies in a shared Greek-Roman tradition, or in an experience in the immediate past aboard ship, or in an experience as members of the same committee. So we can speak of the regularities in human culture, such as the use of language or tools, or we can speak of the regularities in the culture of the University of Chicago undergraduates in 1941–42, in which we shall find certain consistent regularities that these students will not share with any other human group in the world. From such a point of view, the length of time that certain types of cultural behavior have been practiced, their content similarities, their relative diversity or homogeneity, are relevant only as further definitions. As the inhabitants of Chicago, like the inhabitants of Zuñi, learn their patterns of behavior from their fellows by a process of interpersonal conditioning, the anthropologist would not speak of Chicago inhabitants as lacking culture. They may lack a knowledge of the English poets, a common system of etiquette, a recognition of the same religious feast days but they cannot lack culture, any more than one living organism as compared with another could be said to lack biology. Both biology and culture are abstractions, not historical facts.

If we think of culture in terms of regularities instead of similarities, it is possible to refer differences between individuals to a cultural base. Thus agnosticism is systematically related to modern Christianity, and the fact that one of a pair of brothers turns out to be a devout Baptist, the other a fervid agnostic, is explicable in cultural terms to the extent that their common culture provides the background for both choices. The occurrence of prostitution in our society is systematically related to the protected monogamous wife. The occurrence of radicals and conservatives in our society, pro-white and anti-white groups among American Indian tribes, and the lack of

such a dichotomy among the South Balinese, can be accounted for systematically by reference to culture.

Like all scientific abstractions, a cultural statement is concerned with probabilities only. While the properly informed anthropologist should be able to describe the proportion and the types of deviants which may be expected within a given cultural setting, he cannot tell which individuals will become deviants. Here, in order to understand and cure or educate the individual case, we need additional historical knowledge of the way in which a particular individual (whose constitutional makeup is referable to our general knowledge of constitution but cannot be predicted from it), living in a family (the behavior of whose members can be referred to our knowledge of their culture but cannot be predicted in detail from that knowledge), integrated the particular set of experiences to which he was exposed during the course of his life history. In Zuñi, or Manus, or Samoa, we can predict a great deal more about the *content*, the *similarities* in the behavior of individuals than is possible in Chicago. The therapist or the educator would have a relatively easier task. That difference means, however, not that in Chicago the behavior of individuals is less culturally conditioned, but that the abstractions which are needed to handle that culture are more complicated.

Let me give an example. If one invites twenty strangers to dinner in Southern Ireland, on Friday, the chances are high that a large majority of them will elect to eat fish. If one invites a similar number of strangers to dinner in Chicago, without more knowledge it is impossible to predict whether any of them will eat fish. Only if we add data on proper names, country of origin, generation in this country, place of education, social-economic status, occupation, etc., can we achieve the same accuracy of prediction which we achieve in the first case by the mere knowledge that our guests are residents of Southern Ireland. The fact that the prediction is more difficult does not mean that the same sort of regularities cannot be invoked—that, when we finally find out what are the probabilities that eighteen out of the twenty will not eat fish, we are not invoking cultural understanding to make the estimate. On the other hand, to find out why a man whose name is definitely lowland Scots, whose profession is that of a criminal lawyer, who is eighth-generation American, a teetotaler, and a member of the Fight for Freedom Committee, is also a Roman Catholic convert and elects to eat fish on Friday requires a life-history exploration.

It is important to keep clear the difference between a prediction of how a given individual will develop, before he develops (which no anthropologist can make), and an understanding of that development in terms of our knowledge of his culture and his physical makeup after it has occurred. Keeping sight of this distinction will resolve a large amount of the apparent contradiction between the position of the anthropologist, that there is no item of behavior of any human being reared in contact with other human beings which may not be referred to the concept of culture, and the position of the psychiatrist, that a knowledge of the culture of his patient is not enough.

There is, however, a very real danger in attempting to treat the intimate home environment under the same conceptual scheme as the particular life-history experience. When it is insisted that the idiosyncratic elements in the behavior of an individual must be explained historically and then this historical experience is identified with *family* experience, the intimate family environment is placed outside the cultural frame of reference. As one eminent psychiatrist phrased it recently: "All environmental pressures in the significant early years are transmitted to the child exclusively through

the known intimate individuals of his nursery life. They are his only world; and the great mass of unknown humanity who live by certain mores which we call 'culture' play no part in his earliest years." This misunderstanding, which would put all phenomena classified as "culture" outside the nursery, arises, I think, when the family environment as such, as opposed to the "wider environment," is confused with the historical family environment of a given patient or student. The intimate family environment, like the design of political behavior, is culturally patterned, and the way in which a given parent, with a given constitution and a given life history, will mediate these patterns to a child is also culturally patterned. The smallest detail of particularity in the parent is culturally limited and culturally distinctive. The language in which a mother may express rejection, the speed and tempo with which she thrusts the baby from her breast, the food which she offers as a substitute, the type of guilt or fear that she experiences, the probability that she will treat the same child in the same way tomorrow or that she will treat a child of the opposite sex differently, the extent to which she attends to what she is doing, the likelihood that she will remember her rejecting act an hour afterward—these and a thousand other comparable qualities of her behavior will be found to vary systematically with the culture to which she belongs. The extent to which a rejecting mother is one in a hundred or one of ninety-nine in a hundred will bring in another element which, while apparently quantitative, will introduce differences as truly qualitative as those between a slowly changing and a rapidly changing culture.

In such a series of illustrations as the reactions of second-generation American sons to economically unsuccessful parents, the differences in these responses can be referred to cultural regularities just as surely as they can be referred to psychological and biological regularities. It is possible to compare—to identify equivalences, analogies, and homologies—to state differences, and to relate these differences to basic regularities in terms of any one of these frames of reference. The tongue of a man who recites a Greek Orthodox prayer can be compared with the tongue of a man reciting a voodoo spell, either in anatomical or in phonetic terms; and whichever frame of reference we are concerned with, our scientific contribution will be a statement about systematically interrelated differences rather than a list of similarities. As long as we stress only the similarities rather than the regularities, we tie our hands, regarding personality as jointly influenced by hereditary, cultural, and individual life-history factors. I do not feel that a fundamental shift in the cultural factors will have only a statistical effect on the personality types. Although an Arapesh, a Balinese, and a Iatmul may all appear "pessimistic," cultural factors will be responsible for a different etiology of the pessimism in the three cultures. This difficulty is due, at least in part, to the use of the word "pessimism," implying, to me at least, a western European time perspective which is very unlikely to be found in the view of the world held by a Balinese native. It is for reasons such as these that I feel we need more abstract descriptions for "personality types" before we can equate those of one culture with those of another. When these abstractions are substituted for our present rather concrete phrasings, our definition of "personality" itself will have shifted.

Cultural Influences on Personality

In studies of the way in which the newborn baby is gradually educated into a fully representative member of his society, there has been a tendency to go from one extreme to the other: either to emphasize that the child drew in with the air he breathed the culture within

which he was born or to select out certain striking and special elements in the educational system—the cradleboard, scare dancers, a violent weaning technique, or a habit of endless moral homilies—and to pin the whole educational process onto these few elements. The first emphasis has characterized most formal anthropology; the second, most attempts to use the insights of psycho-analysis, either formally or informally, for the elucidation of the process of culturation.

A balance may be restored by a recognition that, while the educational process is not so inexplicit and automatic as the anthropologists have tended to assume (that there are definite mechanisms characteristic of different cultures by which the social character of the child is molded to conform to cultural standards), still the various striking and imputedly traumatic or determinative elements which have been selected out are significant mainly because they are easily identifiable and striking, not because their impact upon the child is so overpowering in comparison with other less striking cultural influences. The mother who weans her child harshly by putting red pepper on her breasts will express the same attitude toward the child in her every act or tone of voice. If she does not, if in fact the idea of red pepper is a naive importation which she uses in contexts containing no other congruently harsh elements, this weaning method will probably have very little effect on the child because it is unsupported by the details of voice and handling which would reinforce it and give it significance. At present our skill in recording and identifying the slight nuances of behavior which serve as the indispensable background for any one of these dramatic educational methods is so slight and so uneven that a defect of methodology is likely to be translated into a scientific theory and undue emphasis is likely to be given to that which is simply so identifiable and so conspicuous that we can record it.

A second error is introduced into the discussion of primitive education if too much stress is laid on the sequence in the child's life, set against a cultural background. which because of the very treatment seems also to be characterized by chronology. Thus a child suckled and weaned in a given fashion is pictured as developing a given character which will, when the child becomes an adult, be expressed through various forms of sorcery or distinctive initiatory rites. Such descriptions, again methodologically conditioned by the very difficulties of describing seriatim a process which is simultaneous, leave out of account the fact that the child, while being suckled and weaned in a given fashion, is in fact being suckled and weaned by a mother who is practicing the given form of sorcery; whose hand will tremble as she observes a neighbor pick up something—she knows not what—from the ground where she is sitting; who will draw her baby closer to her breast as a stranger, perhaps a sorcerer, passes through the village. The child does not, after being equipped with certain character traits, wait until he is adult to experience the adult expressions of these traits; from earliest childhood he receives more or less direct impact of the adult expressions. His behavior is patterned, not only by the usages connected with infancy and early childhood, but by the stylized behavior of adults, their rites and ceremonies, either because he is a direct witness or because they, who have been participants, clutch or pat him differently as a result of the tension engendered or released by the ceremonies.

Illustrations from Balinese Life

I showed a short sequence of Balinese films [2] to illustrate such a series of levels

[2] For visual materials, see G. Bateson and M. Mead, *Balinese Character* (New York: New York Academy of Sciences, 1942).

of impact. A mother was seen lightly teasing her seven-month-old baby in a style so gay, so casual, that it is difficult to believe that one could call this behavior culturally distinctive at all—if one misses the moment when she looks into vacancy as the happily goaded infant bites at her inattentive hand. Then I showed a sample from the other end of the continuum, an adult theatrical performance in which the inattentive and powerful witch is attacked in vain by young men who fall down in a trance before her and turn their daggers against themselves. Small children view this spectacle. Their estimate of their mothers is altered, skewed, distorted by their experience of the witch, and the attack which they, as children, do *not* make against their mothers with anything like such completeness, is consummated before their eyes and ends in a trance which simulates, but is not, death. I showed a film of an itinerant dancer who represents the eminently desirable and unobtainable female to the Balinese and who usually dances vis-à-vis one village lad after another, advancing, retreating, coquetting, never yielding. In the midst of such scenes in which she, beautifully dressed and desirable, has been dancing to each one of them in turn, she shifts to a stylized representation of the witch play. Becoming the witch, she dances threateningly with a doll which she flings upon the ground, threatens, picks up again. Then smoothly, in the next scene, she becomes again the desirable object of formal symbolic courtship.

Finally, I showed a series of scenes in the life of a single Balinese baby, extending over twenty-one months of his life. Here he is first shown being gaily teased by his mother, in whose play the overstimulative element is still lightly defined. Then, at nineteen months, we see him teased by both parents, offered a coin and then deprived of it, scared by his father's assumption of a mask. His mother exploits his induced fear to bring him running back to her, and his father ultimately makes up to him with a gift of food. Then, at twenty-two months, we see an incident of the sort which is often seized upon to describe a whole process of character development: the mother borrows a smaller baby to provoke her own unweaned child. When his jealousy is reaching violence, she offers him the baby for a moment, undercutting his anger; and when, finally, overstimulated by a definitely sexual flirtation scene between his mother and himself, he throws his arms around her neck, she again undercuts the climax of his excitement and turns to the borrowed baby. Then we see him a year later, still unweaned, again bathed by his mother, whose provocative teasing has become harsh and joyless, while he, only a year before an expressive, responsive child, stands tense, unresponsive, unhappy. Again the mother borrows a baby to provoke him, but he does not go to her. He simply stands. From now on he will be unresponsive to human beings: only in the arts, in trance, in grumbling, will his emotions be given play.

Throughout all these experiences, all of which bear upon the growing child, the same theme can be identified: the fear of the female, who stimulates only to disappoint and throw one's self back upon one's self. At an even more abstract level we can describe a climax structure very different from our own, in which the Balinese child learns to avoid climax, to depend on an initial strong stimulus with a diminuendo thereafter.

The significant point in an equilibrated and homogeneous culture is that various experiences are not a simple sequence in the life of the individual, that he is receiving the impact of all of them at once, both directly and mediated by others. The lightly teased little baby is teased before other children; his older sibling is present; neighbors look over the wall. Around the square where the witch play is enacted sit small unweaned children,

clinging to their mothers' breasts. Every level of cultural statement is going on simultaneously, and the experience of the child is far more complex and integrated than if these represented a sequence, spaced out over a lifetime.

Differences of Educative Experiences in Static and Changing Societies

This characteristic of homogeneous, equilibrated societies introduces a qualitative difficulty into comparisons between such societies and our own heterogeneous and changing society. I want to center my discussion here on the difference between the educative experiences in equilibrated and in rapidly changing societies. (It is recognized, of course, that no society is completely unchanging; the emphasis here is on the relatively striking differences in rates of change.) In a changing society the mother handles the infant in ways in which she was not handled herself. Moreover, the symbolic expressions of present-day culture—moving pictures, radio, the "funnies," the jokes, and the clichés—may be attuned, not to her type of character structure, but to that of some intermediate age group, either older or younger than herself. As she handles her child—according to the newest pediatric fad, which has no integrated meaning to her—she is listening to a song or a sketch over the radio, which also may have an oblique rather than a direct significance for her. Her mother or mother-in-law, sitting across the room and expressing in every gesture her disapproval both of the way in which the baby is being handled, and of the song over the radio, adds a third note. Instead of a situation in which all the child's experiences, no matter of what level of articulacy or immediacy, converge to make a common stream, there are these continual discrepancies, alterations in meaning, lack of correspondence between the character of the individuals who handle the child and the experiences to which those persons are being subjected.

Out of this situation grows our special version of artistic expression, in which adults have to invent, as adults, forms to express what happened to them as children—and these expressions are significant and meaningful for their own generation at most, and usually, because our culture is also heterogeneous as well as changing, for a very small section of their own generation. The rapid, intense popularity, followed by virtual oblivion, of such a dramatist as Pirandello is a vivid illustration of this point. Students of the *salons* in Paris remarked before the war that, whereas a period in art used to be a generation, it is now only five or six years.

This difference has rather profound implications for every purposive attempt to alter our educational system or to transplant insights gained from our "pure cases" of equilibrated, homogeneous societies without making due allowance for the element of change. Suppose, for instance, that we make a study of adolescents in 1930 and conclude that their characters reveal the unfavorable impact of certain types of primary-school training. We then set out to alter the primary-school training of a different group of children, who are not, as they are often assumed to be, merely a younger version of the adolescents whom we have just been studying. By the introduction of the indicated alterations, an entirely different effect from the one desired may be attained.

This difficulty obtains whether we are generalizing from the educative process in a primitive culture or from the educative process in one fully studied individual member of our own society. The results of these researches cannot be applied unless they have been reduced to a far more abstract and systematic form than, for example, suggestions about habit-training or the use of reward versus the use of punishment. Some examples of such an increased degree of ab-

straction can be found in Erikson's chart of pregenital development,[3] L. K. Frank's concept of time perspective,[4] G. Bateson's concept of schismogenesis.[5] Using these greater degrees of abstraction in describing interpersonal relationships, and including within the frame of reference an abstract statement of the cultural experience of all the different types of mediators with whom the child comes in contact, will in time make it possible to approach the problem of generalizing from studies of one culture to another. The importance of correcting for the generation factor is brought vividly home by any attempt even to guess at the present character structure of German youth. Even preliminary thinking on the subject requires the construction of an elaborate timetable of age, age of parent, etc., at the time of the various discontinuous and sharp social changes to which these young people have been subjected.

I have selected only one aspect of the problem, the question of adapting generalization from the study of pure cases of homogeneous, equilibrated cultures or individual life-histories to educational planning in a changing society. What must be said here, however, of the need of further abstraction and reduction in entities is true of all applications of research on primitive education to contemporary educational problems. While the presentation of this material in as concrete and sensuous a form as possible is valuable as a background against which cross-cultural understanding can develop, for any really useful application of the material we must work through greater abstraction.

4.

SOCIAL FACTORS IN MORAL DEVELOPMENT

By Jean Piaget

Respect for the Group or Respect for Persons. Search for a Guiding Hypothesis

Before pursuing our analysis any further, it will be well to consider the results we have so far obtained in the light of the two principal hypotheses that have been brought forward concerning the psychological nature of respect and moral laws. If we refuse to accept Kant's view of respect as inexplicable from the point of view of experience,[1] only two solutions remain. Either respect is directed to the group and results from the pressure exercised by the group upon the individual or else it is directed to individuals and is the outcome of the relations of individuals amongst themselves. The first of these theses is upheld by Durkheim, the second by M. Bovet. The moment has not yet come for us to discuss these doctrines for their own sake, but at the same time we must, without

From Jean Piaget, *The Moral Judgment of the Child* (New York: Harcourt, Brace & Company, Inc., 1932). Reprinted by permission of the author and Harcourt, Brace & Company, Inc.

[3] Erik Homburger (Erikson), "Configurations in Play—Clinical Notes," *Psychoan. Quart.*, 1937, VI, 176–177 and his chart of modes and zones in Chapter XIII, "Research on Primitive Children" by Margaret Mead in *Manual of Child Psychology*, Leonard Carmichael, ed. (New York: John Wiley & Sons, 1945), p. 670.

[4] L. K. Frank, "Time Perspectives," *J. Soc. Phil.*, 1939, IV, 293–312.

[5] Gregory Bateson, "Culture Contact and Schismogenesis," *Man*, 1935, XXXV, 178–183.

[1] I. Kant, *Metaphysics of Ethics*, pp. 9–10 and 104–113.

anticipating our final critical examination, develop a working hypothesis that will take account of all possible points of view. This is all the more indispensable since the discrepancy between results obtained by these authors is chiefly due, as will be shown later on, to differences of method. Now, a method is just what we are looking for at present in order to enable us to pass from the study of the rules of games to the analysis of moral realities imposed upon the child by the adult. It is only from the point of view of the right method to adopt that we shall here shortly touch upon the vexing question of the individual and society.

One way of attacking the problem is to analyze and explain the rules objectively, taking account of their connection with social groups defined by their morphology. This is the method which Durkheim used, and no one would think of denying his contribution to the subject of the evolution of moral realities. The mere fact of individuals living in groups is sufficient to give rise to new features of obligation and regularity in their lives. The pressure of the group upon the individual would thus explain the appearance of this *sui generis* feeling which we call respect and which is the source of all religion and morality. For the group could not impose itself upon the individual without surrounding itself with a halo of sanctity and without arousing in the individual the feeling of moral obligation. A rule is therefore nothing but the condition for the existence of a social group; and if to the individual conscience rules seem to be charged with obligation, this is because communal life alters the very structure of consciousness by inculcating into it the feeling of respect.

It is a striking fact, in this connection, that even such ephemeral groupings as those formed by children's societies or created primarily for the purpose of play have their rules and that these rules command the respect of individual minds. It is also curious to note how stable these rules remain in their main features and in their spirit throughout successive generations, and to what degree of elaboration and stylization they attain.

But, as we have shown above, rules, although their content continues to be the same, do not remain identical throughout the child's social development from the point of view of the kind of respect connected with them.

For very young children, a rule is a sacred reality because it is traditional; for the older ones it depends upon mutual agreement. Heteronomy and autonomy are the two poles of this evolution. Does Durkheim's method enable us to explain these facts?

No one has felt more deeply than Durkheim nor submitted to a more searching analysis the development and disappearance of obligatory conformity. In societies of a segmented type conformity is at its maximum: each social unit is a closed system, all the individuals are identical with each other except in the matter of age, and tradition leans with its full weight on the spirit of each. But as a society increases in size and density the barriers between its clans are broken down, local conformities are wiped out as a result of this fusion, and individuals can escape from their own people's supervision. And above all, the division of labor which comes as the necessary result of this increasing density differentiates the individuals from one another psychologically and gives rise to individualism and to the formation of personalities in the true sense. Individual heteronomy and autonomy would thus seem to be in direct correlation with the morphology and the functioning of the group as a whole.

Now, does this analysis apply to our children's societies? In many respects, undoubtedly, it does. There is certainly a resemblance between segmented or mechanical solidarity and the societies formed by children of 5 to 8. As in the organized clan so in these groups, tem-

porarily formed and isolated in relation to each other, the individual does not count. Social life and individual life are one. Suggestion and imitation are all-powerful. All individuals are alike except for differences of prestige and age. The traditional rule is coercive and conformity is demanded of all.

As to the gradual disappearance of conformity as the child grows older, this too we could explain by some of the factors defined by Durkheim. To the increasing size and density of social groups and to the ensuing liberation of the individual we can compare the fact that our children, as they grow older, take part in an ever-increasing number of local traditions. The marble player of 10 or 12 will discover, for example, that there are other usages in existence besides those to which he is accustomed; he will make friends with children from other schools who will free him from his narrow conformity, and in this way a fusion will take place between clans which up till then had been more or less isolated. At the same time, the growing child detaches himself more and more from his family circle, and since at first he assimilates games to the duties laid down for him by adults, the more he escapes from family conformity, the greater change will his consciousness of rules undergo.

If, however, we are able to compare all these facts to the growth of societies in size and density, we can do so only from the point of view of the gradual diminution of the supervision exercised over individuals. In other words, the outstanding fact in the evolution of game rules is that the child is less and less dominated by the "older ones." There is little or no progressive division of labor among children; such differentiations as arise are psychological and not economic or political. If, therefore, children's societies do, in a sense, develop from the segmented to the more highly organized type, and if there is a correlative evolution from conformity to individualistic cooperation, or from heteronomy to autonomy, this process, though we may describe it in the objective terms of sociology, must be attributed first and foremost to the morphology and activity of the various age classes of the population.

In other words, the main factor in the obligatory conformity of very young children is nothing but respect for age—respect for older children, and, above all, respect for adults. And if, at a given moment, cooperation takes the place of constraint, or autonomy that of conformity, it is because the child, as he grows older, becomes progressively free from adult supervision. This came out very clearly in the game of marbles. Children of 11 to 13 have no others above them in this game, since it is one that is only played in the lower school. But apart from this, the boy begins at this age to feel himself more and more on the same level as adolescents and to free himself inwardly from adult constraint. As a result, his moral consciousness undergoes the alterations we have outlined above. There can be no doubt that this phenomenon is peculiar to our civilization and therefore falls under the Durkheimian scheme. In our societies the child of 13 escapes from the family circle and comes in contact with an ever-increasing number of social circles which widen his mental outlook. Whereas in so-called primitive communities, adolescence is the age of initiation, therefore of the strongest moral constraint, and the individual, as he grows older, becomes more and more dependent. But keeping in mind only our societies of children, we see that cooperation constitutes the most deep-lying social phenomenon, and that which has the surest psychological foundations. As soon as the individual escapes from the domination of age, he tends towards cooperation as the normal form of social equilibrium.

In short, if, putting other considerations aside for the moment, we seek only to find a working hypothesis, the meth-

odological difficulty of Durkheimism seems to be the following with regard to the different kinds of respect. Durkheim argues as though differences from one age or from one generation to another were of no account. He assumes homogeneous individuals and tries to find out what repercussion different modes of grouping would have upon their minds. All that he gets at in this way is profoundly true, but it is incomplete. We have only to make the impossible supposition of a society where everyone would be of the same age, of a society formed by a single generation indefinitely prolonged, to realize the immense significance attaching to age relations and especially to the relations between adults and children. Would such a society ever have known anything of obligatory conformity? Would it be acquainted with religion or at any rate with the religions that taught transcendence? Would unilateral respect with all its repercussions upon the moral consciousness be observed in such a group as this? We only wish to ask these questions. Whichever way they are answered, there can be no doubt that cooperation and social constraint deserve to be far more sharply contrasted than they usually are, the latter being perhaps nothing more than the pressure of one generation upon the other, whereas the former constitutes the deepest and most important social relation that can go to the development of the norms of reason.

This influence exercised by age brings us to the second possible view of the psychology of rules, we mean that held by M. Bovet. Theoretically, and in his method, M. Bovet recognizes only individuals. Only, instead of becoming involved, as others have been in a barren discussion on the limits of what is social and what is individual, M. Bovet admits that respect, the feeling of obligation, and the making of rules presuppose the interaction of at least two individuals. On this point his method is parallel to Durkheim's and in no way opposed to it. For the real conflict lies between those who want to explain the moral consciousness by means of purely individual processes (habit, biological adaptation, etc.) and those who admit the necessity for an inter-individual factor. Once grant that two individuals at least must be taken into account if a moral reality is to develop, then it matters not whether you describe the facts objectively, as Durkheim did, or at least tried to do, or whether you describe them in terms of consciousness.[2] How, asks M. Bovet, does the sense of duty appear? Two conditions, he says, are necessary, and their conjunction sufficient. (1) The individual must receive a command from another individual; the obligatory rule is therefore psychologically different from the individual habit or from what we have called the motor rule. (2) The individual receiving the command must accept it, i.e., must respect the person from whom it came. M. Bovet differs on this point from Kant, since he regards respect as a feeling directed to persons and not to the rule as such. It is not the obligatory character of the rule laid down by an individual that makes us respect this individual, it is the respect we feel for the individual that makes us regard as obligatory the rule that he lays down. The appearance of the sense of duty in a child thus admits of the simplest explanation, namely that he receives commands from older children (in play) and from adults (in life), and that he respects older children and parents.

It will be seen that our results completely confirm this view of the matter. Before the intervention of adults or of older children there are in the child's conduct certain rules that we have called

[2] See R. Lacombe's conclusive remarks, *La Méthode sociologique de Durkheim* Also d'Essertier, *Psychologie et Sociologie*, Paris, Alcan, and many other contributions to the subject.

motor rules. But they are not imperative, they do not constitute duties but only spontaneous regularities of behavior. From the moment that the child has received from his parents a system of commands, however, rules and, in general, the world order itself seem to him to be morally necessary. In this way, as soon as the little child encounters the example of older children at marbles, he accepts these suggestions and regards the new rules discovered in this way as sacred and obligatory.

But the problem which faces us and which M. Bovet has himself clearly formulated and discussed is how this morality of duty will allow for the appearance of the morality of goodness.

The problem is two-fold. In the first place, the primitive consciousness of duty is essentially heteronomous, since duty is nothing more than the acceptance of commands received from without. How then, asks M. Bovet, will the child come to distinguish a "good" from a "bad" respect, and, after having accepted without distinction everything that was laid down for him by his environment, how will he learn to make his choice and to establish a hierarchy of values? In language which exactly recalls that in which Durkheim describes the effect of increasing social density on the minds of the individuals, M. Bovet points here to the effect of conflicting influences and even of contradictory commands: the child pulled in several directions at once is forced to appeal to his reason in order to bring unity into the moral material. Already we have autonomy, but since reason does not create new duties and can only choose from among the orders received, this autonomy is still only relative. In the second place, alongside of the sense of duty we must, according to M. Bovet, distinguish a sense of goodness, a consciousness of something attractive and not merely obligatory, a consciousness that is fully autonomous. In contrast to Durkheim who, while he fully recognized this dualism of duty and good nevertheless tried to trace them both to the same efficient cause, viz. pressure of the group, M. Bovet leaves the question open, and does so intentionally.

It is at this point, so it seems to us, that the part played by mutual respect comes in. Without going outside M. Bovet's fertile hypothesis, according to which all the moral sentiments are rooted in the respect felt by individuals for each other, we can, nevertheless, distinguish different types of respect. It seems to us an undeniable fact that in the course of the child's mental development, unilateral respect or the respect felt by the small for the great plays an essential part: it is what makes the child accept all the commands transmitted to him by his parents and is thus the great factor of continuity between different generations. But it seems to us no less undeniable, both in view of the results we have so far obtained and of the facts we shall examine in the rest of the book, that as the child grows in years the nature of his respect changes. In so far as individuals decide questions on an equal footing—no matter whether subjectively or objectively—the pressure they exercise upon each other becomes collateral. And the interventions of reason, so rightly noted by M. Bovet, for the purpose of explaining the autonomy now acquired by morality, are precisely the outcome of this progressive cooperation. Our earlier studies led us to the conclusion that the norms of reason, and in particular the important norm of reciprocity, the source of the logic of relations, can only develop in and through cooperation. Whether cooperation is an effect or a cause of reason, or both, reason requires cooperation in so far as being rational consists in "situating oneself" so as to submit the individual to the universal. Mutual respect therefore appears to us as the necessary condition of autonomy under its double aspect, intellectual and

moral. From the intellectual point of view, it frees the child from the opinions that have been imposed upon him while it favors inner consistency and reciprocal control. From the moral point of view, it replaces the norms of authority by that norm immanent in action and in consciousness themselves, the norm of reciprocity in sympathy.

In short, whether one takes up the point of view of Durkheim or of M. Bovet, it is necessary, in order to grasp the situation, to take account of two groups of social and moral facts—constraint and unilateral respect on the one hand, cooperation and mutual respect on the other. Such is the guiding hypothesis which will serve us in the sequel and which will lead us in examining the moral judgments of children to dissociate from one another two systems of totally different origin. Whether we describe the facts in the terms of social morphology or from the point of view of consciousness (and the two languages are, we repeat, parallel and not contradictory) it is impossible to reduce the effects of cooperation to those of constraint and unilateral respect.

In conclusion, we find that the notions of justice and solidarity develop correlatively and as a function of the mental age of the child. In the course of this section, three sets of facts have appeared to us to be connected together. In the first place, reciprocity asserts itself with age. To hit back seems wrong to the little ones because it is forbidden by adult law, but it seems just to the older children, precisely because this mode of retributive justice functions independently of the adult and sets "punishment by reciprocity" above "expiatory punishment." In the second place, the desire for equality increases with age. Finally, certain features of solidarity, such as not cheating or not lying between children, develop concurrently with the above tendencies.

The Idea of Justice

To bring our enquiry to a close let us examine the answers given to a question which sums up all that we have been talking about. We asked the children, either at the end or at the beginning of our interrogatories, to give us themselves examples of what they regarded as unfair.[3]

The answers we obtained were of four kinds: (1) Behavior that goes against commands received from the adult—lying, stealing, breakages, etc.; in a word, everything that is forbidden. (2) Behavior that goes against the rules of a game. (3) Behavior that goes against equality (inequality in punishment as in treatment). (4) Acts of injustice connected with adult society (economic or political injustice). Now, statistically, the results show very clearly as functions of age.

Here are examples of the identification of what is unfair with what is forbidden.

Age 6: "A little girl who has broken a plate," "to burst a balloon," "children who make a noise with their feet during prayers," "telling lies," "something not true," "it's not fair to steal," etc.

Age 7: "Fighting," "disobeying," "fighting about nothing," "crying for nothing," "playing pranks," etc.

Age 8: "Fighting each other," "telling lies," "stealing," etc.

Category	Replies, Percent	
	6–8 years	9–12 years
Forbidden	64	7
Games	9	9
Inequality	27	73
Social injustice	—	11
Total	100	100

[3] As a matter of fact this term is not understood by all, but it can always be replaced by "not fair" (Fr. *pas juste*).

Here are examples of inequalities:

AGE 6: "Giving a big cake to one and a little one to another." "One piece of chocolate to one and two to another."

AGE 7: "A mother who gives more to a little girl who isn't nice." "Beating a friend who has done nothing to you."

AGE 8: "Someone who gave two tubes [to two brothers] and one was bigger than the other" [taken from experience, this!]. "Two twin sisters who were not given the same number of cherries" [also experienced].

AGE 9: "The mother gives a [bigger] piece of bread to someone else." "The mother gives a lovely dog to one sister and not to the other." "A worse punishment for one than for the other."

AGE 10: "When you both do the same work and don't get the same reward." "Two children both do what they are told, and one gets more than the other." "To scold one child and not the other if they have both disobeyed."

AGE 11: "Two children who steal cherries: only one is punished because his teeth are black." "A strong man beating a weak one." "A master who likes one boy better than another, and gives him better marks."

AGE 12: "A referee who takes sides."

And some examples of social injustice:

AGE 12: "A mistress preferring a pupil because he is stronger, or cleverer, or better dressed."

"Often people like to choose rich friends rather than poor friends who would be nicer."

"A mother who won't allow her children to play with children who are less well dressed."

"Children who leave a little girl out of their games, who is not so well dressed as they are."

The analysis of the child's moral judgments has led us perforce to the discussion of the great problem of the relations of social life to the rational consciousness. The conclusion we came to was that the morality prescribed for the individual by society is not homogeneous because society itself is not just one thing. Society is the sum of social relations, and among these relations we can distinguish two extreme types: relations of constraint, whose characteristic is to impose upon the individual from outside a system of rules with obligatory content, and relations of cooperation whose characteristic is to create within people's minds the consciousness of ideal norms at the back of all rules. Arising from the ties of authority and unilateral respect, the relations of constraint therefore characterize most of the features of society as it exists, and in particular the relations of the child to its adult surrounding. Defined by equality and mutual respect, the relations of cooperation, on the contrary, constitute an equilibrial limit rather than a static system. Constraint, the source of duty and heteronomy, cannot, therefore, be reduced to the good and to autonomous rationality, which are the fruits of reciprocity, although the actual evolution of the relations of constraint tends to bring these nearer to cooperation.

In the first place it should be noticed that the individual is not capable of achieving this conscious realization by himself, and consequently does not straight away succeed in establishing norms properly so-called. It is in this sense that reason in its double aspect, both logical and moral, is a collective product. This does not mean that society has conjured up rationality out of the void, nor that there does not exist a spirit of humanity that is superior to society because dwelling both within the individual and the social group. It means that social life is necessary if the individual is to become conscious of the functioning of his own mind and thus to transform into norms properly so called the simple functional equilibria immanent to all mental and even all vital activity.

For the individual, left to himself, remains egocentric. By which we mean simply this—just as at first the mind, before it can dissociate what belongs to

objective laws from what is bound up with the sum of subjective conditions, confuses itself with the universe, so does the individual begin by understanding and feeling everything through the medium of himself before distinguishing what belongs to things and other people from what is the result of his own particular intellectual and affective perspective. At this stage, therefore, the individual cannot be conscious of his own thought, since consciousness of self implies a perpetual comparison of the self with other people. Thus from the logical point of view egocentrism would seem to involve a sort of alogicality, such that sometimes affectivity gains the ascendant over objectivity, and sometimes the relations arising from personal activity prove stronger than the relations that are independent of the self. And from the moral point of view, egocentrism involves a sort of anomy such that tenderness and disinterestedness can go hand in hand with a naïve selfishness, and yet the child not feel spontaneously himself to be better in one case than the other. Just as the ideas which enter his mind appear from the first in the form of beliefs and not of hypotheses requiring verification, so do the feelings that arise in the child's consciousness appear to him from the first as having value and not as having to be submitted to some ulterior evaluation. It is only through contact with the judgments and evaluations of others that this intellectual and affective anomy will gradually yield to the pressure of collective logical and moral laws.

In the second place, the relations of constraint and unilateral respect which are spontaneously established between child and adult contribute to the formation of a first type of logical and moral control. But this control is insufficient of itself to eliminate childish egocentrism. From the intellectual point of view this respect of the child for the adult gives rise to an "annunciatory" conception of truth: the mind stops affirming what it likes to affirm and falls in with the opinion of those around it. This gives birth to a distinction which is equivalent to that of truth and falsehood: some affirmations are recognized as valid while others are not. But it goes without saying that although this distinction marks an important advance as compared to the anomy of egocentric thought, it is none the less irrational in principle. For if we are to speak of truth as rational, it is not sufficient that the contents of one's statements should conform with reality: reason must have taken active steps to obtain these contents and reason must be in a position to control the agreement or disagreement of these statements with reality. Now, in the case under discussion, reason is still very far removed from this autonomy: truth means whatever conforms with the spoken word of the adult. Whether the child has himself discovered the propositions which he asks the adult to sanction with his authority, or whether he merely repeats what the adult has said, in both cases there is intellectual constraint put upon an inferior by a superior, and therefore heteronomy. Thus, far from checking childish egocentrism at its source, such a submission tends on the contrary partly to consolidate the mental habits characteristic of egocentrism. Just as, if left to himself, the child believes every idea that enters his head instead of regarding it as a hypothesis to be verified, so the child who is submissive to the word of his parents believes without question everything he is told, instead of perceiving the element of uncertainty and search in adult thought. The self's good pleasure is simply replaced by the good pleasure of a supreme authority. There is progress here, no doubt, since such a transference accustoms the mind to look for a common truth, but this progress is big with danger if the supreme authority be not in its turn criticized in the name of reason. Now, criticism is born of discussion,

and discussion is only possible among equals: cooperation alone will therefore accomplish what intellectual constraint failed to bring about. And indeed we constantly have occasion throughout our schools to notice the combined effects of this constraint and of intellectual egocentrism. What is "verbalism," for example, if not the joint result of oral authority and the syncretism peculiar to the egocentric language of the child? In short, in order really to socialize the child, cooperation is necessary, for it alone will succeed in delivering him from the mystical power of the word of the adult.

An exact counterpart of these findings about intellectual constraint is supplied by the observations on the effect of moral constraint contained in the present book. Just as the child believes in the adult's omniscience so also does he unquestioningly believe in the absolute value of the imperatives he receives. This result of unilateral respect is of great practical value, for it is in this way that there is formed an elementary sense of duty and the first normative control of which the child is capable. But it seemed to us clear that this acquisition was not sufficient to form true morality. For conduct to be characterized as moral there must be something more than an outward agreement between its content and that of the commonly accepted rules: it is also requisite that the mind should tend towards morality as to an autonomous good and should itself be capable of appreciating the value of the rules that are proposed to it. Now in the case under discussion, the good is simply what is in conformity with heteronomous commands. And as in the case of intellectual development, moral constraint has the effect of partly consolidating the habits characteristic of egocentrism. Even when the child's behavior is not just a calculated attempt to reconcile his individual interest with the letter of the law, one can observe (as we had occasion to do in the game of marbles) a curious mixture of respect for the law and of caprice in its application. The law is still external to the mind, which cannot therefore be transformed by it. Besides, since he regards the adult as the source of the law, the child is only raising up the will of the adult to the rank of the supreme good after having previously accorded this rank to the various dictates of his own desires. An advance, no doubt, but again an advance charged with doubtful consequences if cooperation does not come and establish norms sufficiently independent to subject even the respect due to the adult to this inner ideal. And indeed so long as unilateral respect is alone at work, we see a "moral realism" developing which is the equivalent of "verbal realism." Resting in part on the externality of rules, such a realism is also kept going by all the other forms of realism peculiar to the egocentric mentality of the child. Only cooperation will correct this attitude, thus showing that in the moral sphere, as in matters of intelligence, it plays a liberating and a constructive role.

Hence a third analogy between moral and intellectual evolution: cooperation alone leads to autonomy. With regard to logic, cooperation is at first a source of criticism; thanks to the mutual control which it introduces, it suppresses both the spontaneous conviction that characterizes egocentrism and the blind faith in adult authority. Thus, discussion gives rise to reflection and objective verification. But through this very fact cooperation becomes the source of constructive values. It leads to the recognition of the principles of formal logic in so far as these normative laws are necessary to common search for truth. It leads, above all, to a conscious realization of the logic of relations, since reciprocity on the intellectual plane necessarily involves the elaboration of those laws of perspective which we find in the operations distinctive of systems of relations.

In the same way, with regard to moral realities, cooperation is at first the source of criticism and individualism. For by comparing his own private motives with the rules adopted by each and sundry, the individual is led to judge objectively the acts and commands of other people, including adults. Whence the decline of unilateral respect and the primacy of personal judgment. But in consequence of this, cooperation suppresses both egocentrism and moral realism, and thus achieves an interiorization of rules. A new morality follows upon that of pure duty. Heteronomy steps aside to make way for a consciousness of good, of which the autonomy results from the acceptance of the norms of reciprocity. Obedience withdraws in favor of the idea of justice and of mutual service, now the source of all the obligations which till then had been imposed as incomprehensible commands. In a word, cooperation on the moral plane brings about transformations exactly parallel to those of which we have just been recalling the existence in the intellectual domain.

Is there any need, by way of conclusion, to point to the educational consequences of such observations? If education claims to be the direct application of what we know about Child Psychology, it would not be necessary. It is obvious that our results are as unfavorable to the method of authority as to purely individualistic methods. It is, as we said in connection with Durkheim, absurd and even immoral to wish to impose upon the child a fully worked-out system of discipline when the social life of children amongst themselves is sufficiently developed to give rise to a discipline infinitely nearer to that inner submission which is the mark of adult morality. It is idle, again, to try and transform the child's mind from outside, when his own taste for active research and his desire for cooperation suffice to ensure a normal intellectual development. The adult must therefore be a collaborator and not a master, from this double point of view, moral and rational. But conversely, it would be unwise to rely upon biological "nature" alone to ensure the dual progress of conscience and intelligence, when we realize to what extent all moral as all logical norms are the result of cooperation. Let us therefore try to create in the school a place where individual experimentation and reflection carried out in common come to each other's aid and balance one another.

If, then, we had to choose from among the totality of existing educational systems those which would best correspond with our psychological results, we would turn our methods in the direction of what has been called "Group Work" and "Self-government." [4] Advocated by Dewey, Sanderson, Cousinet, and by most of the promoters of the "Activity School," the method of work by groups consists in allowing the children to follow their pursuits in common, either in organized "teams" or simply according to their spontaneous groupings. Traditional schools, whose ideal has gradually come to be the preparation of pupils for competitive examinations rather than for life, have found themselves obliged to shut the child up in work that is strictly individual: the class listens in common, but the pupils do their home work separately. This procedure, which helps more than all the family situations put together to reinforce the child's spontaneous egocentrism, seems to be contrary to the most obvious requirements of intellectual and moral development. This is the state of things which the method of work in groups is intended to correct. Cooperation is promoted to the rank of a factor essential to intellectual progress. It need hardly be said that this innova-

[4] We refer the reader, on this point, to our "*Rapport sur les procédés de l'Education morale*," read at the Fifth International Congress on Moral Education in Paris, 1930.

tion assumes value only to the extent that the initiative is left to the children in the actual conduct of their work. Social life is here a complement of individual "activity" (in contrast to the passive repetition which characterizes the method of teaching by books), and it would have no meaning in the school except in relation to the renovation of the teaching itself.

As for self-government, the fine works of F. W. Foerster[5] and Ad. Ferrière[6] have rendered unnecessary the task of reminding our readers of its principles. M. Ferrière, in particular, has described with great care and with that proselytizing fervor which characterizes all his educational works the various modes of government of children by themselves. It is hard to read his book without being filled both with the hope of seeing the experiments he analyzes carried out more generally, and with the satisfaction at finding in the principles that characterize children's republics what we already know, thanks to the psycho-sociological study of the moral life.

As to F. W. Foerster, his moral pedagogy is still in our opinion too much tinged with the cult of authority or unilateral respect, and, above all, too much attached to the idea of expiatory punishment. But this makes the preoccupation with autonomy and self-government, which appears in the rest of his work, the more significant.

But pedagogy is very far from being a mere application of psychological knowledge. Apart from the question of the aims of education, it is obvious that even with regard to technical methods it is for experiment alone and not deduction to show us whether methods such as that of work in groups and of self-government are of any real value. For, after all, it is one thing to prove that cooperation in the play and spontaneous social life of children brings about certain moral effects, and another to establish the fact that this cooperation can be universally applied as a method of education. This last point is one which only experimental education can settle. Educational experiment, on condition that it be scientifically controlled, is certainly more instructive for psychology than any amount of laboratory experiments, and because of this experimental pedagogy might perhaps be incorporated into the body of the psycho-sociological disciplines. But the type of experiment which such research would require can only be conducted by teachers or by the combined efforts of practical workers and educational psychologists. And it is not in our power to deduce the results to which this would lead.

[5] F. W. Foerster, *L'École et le Caractère* (Saint-Blaise: Foyer Solid., 1910).

[6] Ad. Ferrière, *L'Autonomie des Écoliers* (Coll. des Actualités pédag. Delachaux et Niestlé).

5.

RACIAL IDENTIFICATION AND PREFERENCE IN NEGRO CHILDREN

By Kenneth B. Clark and Mamie P. Clark

Problem

The specific problem of this study is an analysis of the genesis and development of racial identification as a function of ego development and self-awareness in Negro children.

Race awareness, in a primary sense, is defined as a consciousness of the self as belonging to a specific group which is differentiated from other observable groups by obvious physical characteristics which are generally accepted as being racial characteristics.

Because the problem of racial identification is so definitely related to the problem of the genesis of racial attitudes in children, it was thought practicable to attempt to determine the racial attitudes or preferences of these Negro children—and to define more precisely, as far as possible, the developmental pattern of this relationship.

Procedure

This paper presents results from only one of several techniques devised and used by the authors to investigate the development of racial identification and preferences in Negro children.[1] Results presented here are from the Dolls Test.

Dolls Test. The subjects were presented with four dolls, identical in every respect save skin color. Two of these dolls were brown with black hair and two were white with yellow hair. In the experimental situation these dolls were unclothed except for white diapers. The position of the head, hands, and legs on all the dolls was the same. For half of the subjects the dolls were presented in the order: white, colored, white, colored. For the other half the order of presentation was reversed. In the experimental situation the subjects were asked to respond to the following requests by choosing *one* of the dolls and giving it to the experimenter:

1. Give me the doll that you like to play with— (*a*) like best.
2. Give me the doll that is a nice doll.
3. Give me the doll that looks bad.
4. Give me the doll that is a nice color.
5. Give me the doll that looks like a white child.
6. Give me the doll that looks like a colored child.
7. Give me the doll that looks like a Negro child.
8. Give me the doll that looks like you.

Requests 1 through 4 were designed to reveal preferences; requests 5 through 7 to indicate a knowledge of "racial differences"; and request 8 to show self-identification.

It was found necessary to present the preference requests first in the experimental situation because in a preliminary investigation it was clear that the children who had already identified themselves with the colored doll had a marked tendency to indicate a preference for this doll and this was not necessarily a gen-

Condensed by the authors from an unpublished study made possible by a fellowship grant from the Julius Rosenwald Fund, 1940–1941.

[1] Other techniques presented in the larger study include: (1) a coloring test; (2) a questionnaire and (3) a modification of the Horowitz line drawing technique. (R. E. Horowitz, "Racial Aspects of Self-identification in Nursery School Children," *J. Psychol.*, 1939, VII, 91–99.)

uine expression of actual preference, but a reflection of ego involvement. This potential distortion of the data was controlled by merely asking the children to indicate their preferences first and then to make identifications with one of the dolls.

Subjects

Two hundred fifty-three Negro children formed the subjects of this experiment. One hundred thirty-four of these subjects (southern group) were tested in segregated nursery schools and public schools in Hot Springs, Pine Bluff, and Little Rock, Arkansas. These children had had no experience in racially mixed school situations. One hundred nineteen subjects (northern group) were tested in the racially mixed nursery and public schools of Springfield, Massachusetts.

Age distribution of subjects:

Age, years	North	South	Total
3	13	18	31
4	10	19	29
5	34	12	46
6	33	39	72
7	29	46	75
Total	119	134	253

Sex distribution of subjects:

Sex	North	South	Total
Male	53	63	116
Female	66	71	137

Skin color of subjects:

Skin color	North	South	Total
Light [a]	33	13	46
Medium [b]	58	70	128
Dark [c]	28	51	79

[a] light (practically white)
[b] medium (light brown to dark brown)
[c] dark (dark brown to black)

All subjects were tested individually in a schoolroom or office especially provided for this purpose. Except for a few children who showed generalized negativism from the beginning of the experiment (results for these children are not included here), there was adequate rapport between the experimenter and all subjects tested. In general, the children showed high interest in and enthusiasm for the test materials and testing situation. The children, for the most part, considered the experiment somewhat of a game.

Results

Racial Identification. Although the questions on knowledge of "racial differences" and self-identification followed those designed to determine racial preference in the actual experimental situation, it appears more meaningful to discuss the results in the following order: knowledge of "racial differences," racial self-identification, and finally racial preferences.

The results of the responses to requests 5, 6, and 7, which were asked to determine the subjects' knowledge of racial differences, may be seen in Table 1. Ninety-four percent of these children chose the white doll when asked to give the experimenter the white doll; 93 percent of them chose the brown doll when asked to give the colored doll; and, 72 percent chose the brown doll when asked to give the Negro doll. These results indicate a clearly established knowledge of a "racial difference" in these subjects—and some awareness of the relation between the physical characteristic of skin color and the racial concepts of "white" and "colored." Knowledge of the concept of "Negro" is not so well developed as the more concrete verbal concepts of "white" and "colored" as applied to racial differences.

The question arises as to whether choice of the brown doll or of the white doll, particularly in response to ques-

TABLE 1

CHOICES OF ALL SUBJECTS

Choice	Request 5 (for white)		Request 6 (for colored)		Request 7 (for Negro)		Request 8 (for you)	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Colored doll	13	5	235	93	182	72	166	66
White doll	237	94	15	6	50	20	85	33
Don't know or no response	3	1	3	1	21	8	2	1

tions 5 and 6, really reveals a knowledge of "racial differences" or simply indicates a learned perceptual reaction to the concepts of "colored" and "white." Our evidence that the responses of these children *do* indicate a knowledge of "racial difference" comes from several sources: the results from other techniques used (i.e., a coloring test and a questionnaire) and from the qualitative data obtained (children's spontaneous remarks) strongly support a knowledge of "racial differences." Moreover, the consistency of results for requests 5 through 8 also tends to support the fact that these children are actually making identifications in a "racial" sense.

The responses to request 8, designed to determine racial self-identification follow the following pattern: 66 percent of the total group of children identified themselves with the colored doll, while 33 percent identified themselves with the white doll. The critical ratio of this difference is 7.6.[2]

Comparing the results of request 8 (racial self-identification) with those of requests 5, 6, and 7 (knowledge of racial difference) it is seen that the awareness of racial differences does not necessarily determine a socially accurate racial self-identification—since approximately nine out of ten of these children are aware of racial differences as indicated by their correct choice of a "white" and "colored" doll on request, and only a little more than six out of ten make socially correct identifications with the colored doll.

Age Differences. Table 2 shows that, when the responses to requests 5 and 6 are observed together, these subjects at each age level have a well-developed knowledge of the concept of racial difference between "white" and "colored" as this is indicated by the characteristic of skin color. These data definitely indicate that a basic knowledge of "racial differences" exists as a part of the pattern of ideas of Negro children from the age of three through seven years in the northern and southern communities tested in this study—and that this knowledge develops more definitely from year to year to the point of absolute stability at the age of seven.

A comparison of the results of requests 5 and 6 with those of request 7, which required the child to indicate the doll which looks like a "Negro" child, shows that knowledge of a racial difference in terms of the word "Negro" does not exist with the same degree of definiteness as it does in terms of the more basic designations of "white" and "colored." It is significant, however, that knowledge of a difference in terms of the word "Negro" makes a sharp increase from the five- to the six-year level and a less accelerated one between the six- and seven-year levels. The fact that all of the six-year-olds used in this investi-

[2] These results are supported by similar ones from the Horowitz line drawing technique.

TABLE 2

CHOICES OF SUBJECTS AT EACH AGE LEVEL*

Choice	3 yr.		4 yr.		5 yr.		6 yr.		7 yr.	
	No.	Per-cent	No.	Per-cent	No.	Per-cent	No.	Per-cent	No.	Per-cent
Request 5 (for white)										
colored doll . . .	4	13	4	14	3	7	2	3	0	
white doll	24	77	25	86	43	94	70	97	75	100
Request 6 (for colored)										
colored doll . . .	24	77	24	83	43	94	69	96	75	100
white doll	4	13	5	17	3	7	3	4	0	
Request 7 (for Negro)										
colored doll . . .	17	55	17	59	28	61	56	78	64	85
white doll	9	29	10	35	14	30	12	17	5	7
Request 8 (for you)										
colored doll . . .	11	36	19	66	22	48	49	68	65	87
white doll	19	61	9	31	24	52	23	32	10	13

*Individuals failing to make either choice not included, hence some percentages add to less than 100.

gation were enrolled in the public schools seems to be related to this spurt. Since it seems clear that the term "Negro" is a more verbalized designation of "racial differences," it is reasonable to assume that attendance at public schools facilitates the development of this verbalization of the race concept held by these children.

In response to request 8 there is a general and marked increase in the percent of subjects who identify with the colored doll with an increase in age—with the exception of the four- to five-year groups.[3] This deviation of the five-year-olds from the general trend is considered in detail in the larger, yet unpublished study.

Identification by Skin Color. Table 3 shows slight and statistically insignificant differences among the three skin-color groups in their responses which indicate a knowledge of the "racial difference" between the white and colored doll (requests 5 through 7).

It should be noted, however, that the dark group is consistently more accurate in its choice of the appropriate doll than either the light or the medium group on requests 5 through 7. This would seem to indicate that the dark group is slightly more definite in its knowledge of racial differences and that this definiteness extends even to the higher level of verbalization inherent in the use of the term "Negro" as a racial designation. In this regard it is seen that 75 percent of the dark children chose the colored doll

[3] These results are supported by those from the use of the Horowitz line drawing technique.

TABLE 3

CHOICES OF SUBJECTS IN LIGHT, MEDIUM, AND DARK GROUPS*

Choice	Light		Medium		Dark	
	No.	Percent	No.	Percent	No.	Percent
Request 5 (for white)						
colored doll . . .	2	5	8	6	3	4
white doll . . .	43	94	118	92	76	96
Request 6 (for colored)						
colored doll . . .	41	89	118	92	76	96
white doll . . .	4	9	8	6	3	4
Request 7 (for Negro)						
colored doll . . .	32	70	91	71	59	75
white doll . . .	9	20	27	21	14	18
Request 8 (for you)						
colored doll . . .	9	20	93	73	64	81
white doll . . .	37	80	33	26	15	19

* Individuals failing to make either choice not included, hence some percentages add to less than 100.

when asked for the doll which "looks like a Negro child" while only 70 percent of the light children and 71 percent of the medium children made this response. The trend of results for requests 5 and 6 remains substantially the same.

These results suggest further that correct racial identification of these Negro children at these ages is to a large extent determined by the concrete fact of their own skin color, and further that this racial identification is not necessarily dependent upon the expressed knowledge of a racial difference as indicated by the correct use of the words "white," "colored," or "Negro" when responding to white and colored dolls. This conclusion seems warranted in the light of the fact that those children who differed in skin color from light through medium to dark were practically similar in the pattern of their responses which indicated awareness of racial differences but differed markedly in their racial identification (responses to request 8 for the doll "that looks like you") only 20 percent of the light children, while 73 percent of the medium children, and 81 percent of the dark children identified themselves with the colored doll.

It is seen that there is a consistent increase in choice of the colored doll from the light to the medium group; an increase from the medium group to the dark group; and, a striking increase in the choices of the colored doll by the dark group as compared to the light group.[4] All differences, except between

[4] These results substantiate and clearly focus the trend observed through the use of the Horowitz line drawing technique.

TABLE 4

CHOICES OF SUBJECTS IN NORTHERN (MIXED SCHOOLS) AND SOUTHERN (SEGREGATED SCHOOLS) GROUPS*

Choice	North, percent	South, percent
Request 5 (for white)		
colored doll	4	6
white doll	94	93
Request 6 (for colored)		
colored doll	92	94
white doll	7	5
Request 7 (for Negro)		
colored doll	74	70
white doll	20	19
Request 8 (for you)		
colored doll	61	69
white doll	39	29

*Individuals failing to make either choice not included, hence some percentages add to less than 100.

the medium and dark groups, are statistically significant.

Again, as in previous work,[5] it is shown that the percentage of the medium groups' identifications with the white or the colored representation resembles more that of the dark group and differs from the light group. Upon the basis of these results, therefore, one may assume that some of the factors and dynamics involved in racial identification are substantially the same for the dark and medium children, in contrast to dynamics for the light children.

North-South Differences. The results presented in Table 4 indicate that there are no significant quantitative differences between the northern and southern Negro children tested (children in mixed schools and children in segregated schools) in their knowledge of racial differences.

While none of these differences is statistically reliable, it is significant that northern children know as well as southern children which doll is supposed to represent a white child and which doll is supposed to represent a colored child. However, the northern children make fewer identifications with the colored doll and more identifications with the white doll than do the southern children. One factor accounting for this difference may be the fact that in this sample there are many more light colored children in the North (33) than there are in the South (13). Since this difference in self-identification is not statistically significant, it may be stated that the children in the northern mixed-school situation do not

[5] K. B. and M. P. Clark, "Skin Color as a Factor in Racial Identification of Negro Preschool Children," *J. Soc. Psychol.*, 1940, XI, 159–169; "Segregation as a Factor in the Racial Identification of Negro Preschool Children: a preliminary report," *J. Exper. Educ.*, 1939, IX, 161–163; "The Development of Consciousness of Self and the Emergence of Racial Identification in Negro Preschool Children," *J. Soc. Psychol.*, 1939, X, 591–599.

TABLE 5

CHOICES OF ALL SUBJECTS

Choice	Request 1 (play with)		Request 2 (nice doll)		Request 3 (looks bad)		Request 4 (nice color)	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Colored doll	83	32	97	38	149	59	96	38
White doll	169	67	150	59	42	17	151	60
Don't know or no response . . .	1	1	6	3	62	24	6	2

differ from children in the southern segregated schools in either their knowledge of racial differences or their racial identification. A more qualitative analysis will be presented elsewhere.

Racial Preferences. It is clear from Table 5 that the majority of these Negro children prefer the *white* doll and reject the colored doll.

Approximately two thirds of the subjects indicated by their responses to requests 1 and 2 that they like the white doll "best," or that they would like to play with the white doll in preference to the colored doll, and that the white doll is a "nice doll."

Their responses to request 3 show that this preference for the white doll implies a concomitant negative attitude toward the brown doll. Fifty-nine percent of these children indicated that the colored doll "looks bad," while only 17 percent stated that the white doll "looks bad" (critical ratio 10.9). That this preference and negation in some way involve skin color is indicated by the results for request 4. Only 38 percent of the children thought that the brown doll was a "nice color," while 60 percent of them thought that the white doll was a "nice color" (critical ratio 5.0).

The importance of these results for an understanding of the origin and development of racial concepts and attitudes in Negro children cannot be minimized. Of equal significance are their implications, in the light of the results of racial identification already presented, for racial mental hygiene.

Age Differences. Table 6 shows that at each age from three through seven years the majority of these children prefer the white doll and reject the brown doll. This tendency to prefer the white doll is not as stable (not statistically reliable) in the three-year-olds as it is in the four- and five-year-olds. On the other hand, however, the tendency of the three-year-olds to negate the brown doll ("looks bad") is established as a statistically significant fact (critical ratio 4.5).

Analyzing the results of requests 1 and 2 together, it is seen that there is a marked *increase* in preference for the white doll from the three- to the four-year level; a more gradual *decrease* in this preference from the four- to the five-year level; a further decrease from the five- to the six-year level; and a continued decrease from the six- to the seven-year level. These results suggest that although the majority of Negro children at each age prefer the white doll to the brown doll, this preference decreases gradually from four through seven years.

Skin color preferences of these children follow a somewhat different pattern of development. The results of request 4 show that while the majority of children at each age below 7 years prefer the skin color of the white doll, this preference increases from three through five years and decreases from five through seven years. It is of interest to point out that

TABLE 6

CHOICES OF SUBJECTS AT EACH AGE LEVEL*

Choice	3 yr.		4 yr.		5 yr.		6 yr.		7 yr.	
	No.	Per-cent	No.	Per-cent	No.	Per-cent	No.	Per-cent	No.	Per-cent
Request 1 (play with)										
colored doll	13	42	7	24	12	26	21	29	30	40
white doll	17	55	22	76	34	74	51	71	45	60
Request 2 (nice doll)										
colored doll	11	36	7	24	13	28	33	46	33	44
white doll	18	58	22	76	33	72	38	53	39	52
Request 3 (looks bad)										
colored doll	21	68	15	52	36	78	45	63	32	43
white doll	6	19	7	24	5	11	11	15	13	17
Request 4 (nice color)										
colored doll	12	39	8	28	9	20	31	43	36	48
white doll	18	58	21	72	36	78	40	56	36	48

*Individuals failing to make either choice not included, hence some percentages add to less than 100.

TABLE 7

CHOICES OF SUBJECTS IN LIGHT, MEDIUM, AND DARK GROUPS*

Choice	Light		Medium		Dark	
	No.	Percent	No.	Percent	No.	Percent
Request 1 (play with)						
colored doll	11	24	41	32	31	39
white doll	35	76	86	67	48	61
Request 2 (nice doll)						
colored doll	15	33	50	39	32	40
white doll	31	67	72	56	47	60
Request 3 (looks bad)						
colored doll	31	67	73	57	45	57
white doll	6	13	22	17	14	18
Request 4 (nice color)						
colored doll	13	28	56	44	27	34
white doll	32	70	68	53	51	65

*Individuals failing to make either choice not included, hence some percentages add to less than 100.

TABLE 8

CHOICES OF SUBJECTS IN NORTHERN (MIXED SCHOOLS) AND SOUTHERN (SEGREGATED SCHOOLS) GROUPS (REQUESTS 1 THROUGH 4)*

Choice	North, percent	South, percent
Request 1 (play with)		
colored doll	28	37
white doll	72	62
Request 2 (nice doll)		
colored doll	30	46
white doll	68	52
Request 3 (looks bad)		
colored doll	71	49
white doll	17	16
Request 4 (nice color)		
colored doll	37	40
white doll	63	57

*Individuals failing to make either choice not included, hence some percentages add to less than 100.

only at the seven-year level do the same number of children indicate a preference for the skin color of the colored doll as for that of the white doll.

The majority of these children at each age level indicate that the brown doll, rather than the white doll, "looks bad." This result shows positively the negation of the colored doll which was implicit in the expressed preference for the white doll discussed above.

The evaluative rejection of the brown doll is statistically significant, even at the three-year level, and is pronounced at the five-year level. The indicated preference for the white doll is statistically significant from the four-year level up to the seven-year level.

It seems justifiable to assume from these results that the crucial period in the formation and patterning of racial attitudes begins at around four and five years. At these ages these subjects appear to be reacting more uncritically in a definite structuring of attitudes which conforms with the accepted racial values and mores of the larger environment.

Preferences and Skin Color. Results presented in Table 7 reveal that there is a tendency for the majority of these children, in spite of their own skin color, to prefer the white doll and to negate the brown doll. This tendency is most pronounced in the children of light skin color and least so in the dark children. A more intensive analysis of these results appears in a larger, yet unpublished study.

North-South Differences. From Table 8 it is clear that the southern children in segregated schools are less pronounced in their preference for the white doll, compared to the northern children's definite preference for this doll. Although still in a minority, a higher percentage of southern children, compared to northern, prefer to play with the colored doll or think that it is a "nice" doll. The critical ratio of this difference is not significant for request 1 but approaches significance for request 2 (2.75).

A significantly higher percentage (71) of the northern children, compared to southern children (49) think that the brown doll looks bad (critical ratio 3.68). Also a slightly higher percent of the southern children think that the brown doll has a "nice color," while more northern children think that the white doll has a "nice color."

In general, it may be stated that northern and southern children in these age groups tend to be similar in the degree of their preference for the white doll—with the northern children tending to be somewhat more favorable to the white doll than are the southern children. The southern children, however, in spite of their equal favorableness toward the white doll, are significantly less likely to reject the brown doll (evaluate it negatively), as compared to the strong tendency for the majority of the northern children to do so. That this difference is not primarily due to the larger number of light children found in the northern sample is indicated by more intensive analysis presented in the complete report.

Some Qualitative Data. Many of the children entered into the experimental situation with a freedom similar to that of play. They tended to verbalize freely and much of this unsolicited verbalization was relevant to the basic problems of this study.

On the whole, the rejection of the brown doll and the preference for the white doll, when explained at all, were explained in rather simple, concrete terms: for white-doll preference—" 'cause he's pretty" or " 'cause he's white"; for rejection of the brown doll—" 'cause he's ugly" or " 'cause it don't look pretty" or " 'cause him black" or "got black on him."

On the other hand, some of the children who were free and relaxed in the beginning of the experiment broke down and cried or became somewhat negativistic during the latter part when they were required to make self-identifications. Indeed, two children ran out of the testing room, unconsolable, convulsed in tears. This type of behavior, although not so extreme, was more prevalent in the North than in the South. The southern children who were disturbed by this aspect of the experiment generally indicated their disturbance by smiling or matter of factly attempting to escape their dilemma either by attempted humor or rationalization.

Rationalization of the rejection of the brown doll was found among both northern and southern children, however. A northern medium six-year-old justified his rejection of the brown doll by stating that "he looks bad 'cause he hasn't got a eyelash." A seven-year-old medium northern child justified his choice of the white doll as the doll with a "nice color" because "his feet, hands, ears, elbows, knees, and hair are clean."

A northern five-year-old dark child felt compelled to explain his identification with the brown doll by making the following unsolicited statement: "I burned my face and made it spoil." A seven-year-old northern light child went to great pains to explain that he is actually white but: "I look brown because I got a suntan in the summer."

IV

Language

1.

LANGUAGE AND THE DEVELOPMENT OF THE SELF

By George H. Mead

The primitive situation is that of the social act which involves the interaction of different forms * to each other, in carrying out the social process. Within that process one can find what we term the gestures, those phases of the act which bring about the adjustment of the response of the other form. These phases of the act carry with them the attitude as the observer recognizes it, and also what we call the inner attitude. The animal may be angry or afraid. There are such emotional attitudes which lie back of these acts, but these are only part of the whole process which is going on. Anger expresses itself in attack; fear expresses itself in flight. We can see, then, that the gestures mean these attitudes on the part of the form, that is, they have that meaning for us. We see that an animal is angry and is going to attack. We know that that is in the action of the animal, and is revealed by the attitude of the animal. We cannot say that the animal means it in the sense that he has a reflective determination to attack. A man may strike another before he means it; a man may jump and run away from a loud sound behind his back before he knows what he is doing. If he has the idea in his mind, then the gesture not only means this to the observer but it also means the idea which the individual has. In one case the observer sees that the attitude of the dog means attack, but he does not say that it means a conscious determination to attack on the part of the dog. However, if somebody shakes his fist in your face you assume that he has not only a hostile attitude but that he has some idea behind it. You assume that it means not only a possible attack, but that the individual has an idea in his experience.

When, now, that gesture means this idea behind it and it arouses that idea in the other individual, then we have a significant symbol. In the case of the dogfight we have a gesture which calls out appropriate response; in the present case we have a symbol which answers to a meaning in the experience of the first individual and which also calls out that meaning in the second individual. Where the gesture reaches that situation it has become what we call "language." It is now a significant symbol and it signifies a certain meaning.

The gesture is that phase of the individual act to which adjustment takes place on the part of other individuals in the social process of behavior. The vocal

From George H. Mead, *Mind, Self, and Society*, Charles W. Morris, ed. (Chicago: University of Chicago Press, 1934). Reprinted by permission of the editor and the publisher.

* The term *form* is used throughout this passage in the sense of *organism* or *individual*.

gesture becomes a significant symbol (unimportant, as such, on the merely affective side of experience) when it has the same effect on the individual making it that it has on the individual to whom it is addressed or who explicitly responds to it, and thus involves a reference to the self of the individual making it. The gesture in general, and the vocal gesture in particular, indicates some object or other within the field of social behavior, an object of common interest to all the individuals involved in the given social act thus directed toward or upon that object. The function of the gesture is to make adjustment possible among the individuals implicated in any given social act with reference to the object or objects with which that act is concerned; and the significant gesture or significant symbol affords far greater facilities for such adjustment and readjustment than does the non-significant gesture, because it calls out in the individual making it the same attitude toward it (or toward its meaning) that it calls out in the other individuals participating with him in the given social act, and thus makes him conscious of their attitude toward it (as a component of his behavior) and enables him to adjust his subsequent behavior to theirs in the light of that attitude. In short, the conscious or significant conversation of gestures is a much more adequate and effective mechanism of mutual adjustment within the social act —involving, as it does, the taking, by each of the individuals carrying it on, of the attitudes of the others toward himself—than is the unconscious or non-significant conversation of gestures.

When, in any given social act or situation, one individual indicates by a gesture to another individual what this other individual is to do, the first individual is conscious of the meaning of his own gesture—or the meaning of his gesture appears in his own experience—insofar as he takes the attitude of the second individual toward that gesture, and tends to respond to it implicitly in the same way that the second individual responds to it explicitly. Gestures become significant symbols when they implicitly arouse in an individual making them the same responses which they explicitly arouse, or are supposed to arouse, in other individuals, the individuals to whom they are addressed; and in all conversations of gestures within the social process, whether external (between different individuals) or internal (between a given individual and himself), the individual's consciousness of the content and flow of meaning involved depends on his thus taking the attitude of the other toward his own gestures. In this way every gesture comes within a given social group or community to stand for a particular act or response, namely, the act or response which it calls forth explicitly in the individual to whom it is addressed, and implicitly in the individual who makes it; and this particular act or response for which it stands is its meaning as a significant symbol. Only in terms of gestures as significant symbols is the existence of mind or intelligence possible; for only in terms of gestures which are significant symbols can thinking—which is simply an internalized or implicit conversation of the individual with himself by means of such gestures—take place. The internalization in our experience of the external conversations of gestures which we carry on with other individuals in the social process is the essence of thinking; and the gestures thus internalized are significant symbols because they have the same meanings for all individual members of the given society or social group, i.e., they respectively arouse the same attitudes in the individuals making them that they arouse in the individuals responding to them: otherwise the individual could not internalize them or be conscious of them and their meanings. As we shall see, the same procedure which is responsible for the genesis and existence of mind or consciousness—namely, the taking of the attitude

of the other toward one's self, or toward one's own behavior—also necessarily involves the genesis and existence at the same time of significant symbols, or significant gestures.

In the case of the vocal gesture the form hears its own stimulus just as when this is used by other forms, so it tends to respond also to its own stimulus as it responds to the stimulus of other forms. That is, birds tend to sing to themselves, babies to talk to themselves. The sounds they make are stimuli to make other sounds. Where there is a specific sound that calls out a specific response, then if this sound is made by other forms it calls out this response in the form in question. If the sparrow † makes use of this particular sound then the response to that sound will be one which will be heard more frequently than another response. In that way there will be selected out of the sparrow's repertoire those elements which are found in the song of the canary, and gradually such selection would build up in the song of the sparrow those elements which are common to both, without assuming a particular tendency of imitation. There is here a selective process by which is picked out what is common. "Imitation" depends upon the individual influencing himself as others influence him, so that he is under the influence not only of the other but also of himself insofar as he uses the same vocal gesture.

The vocal gesture, then, has an importance which no other gesture has. We cannot see ourselves when our face assumes a certain expression. If we hear ourselves speak we are more apt to pay attention. One hears himself when he is irritated using a tone that is of an irritable quality, and so catches himself. But in the facial expression of irritation the stimulus is not one that calls out an expression in the individual which it calls out in the other. One is more apt to catch himself up and control himself in the vocal gesture than in the expression of the countenance.

It is only the actor who uses bodily expressions as a means of looking as he wants others to feel. He gets a response which reveals to him how he looks by continually using a mirror. He registers anger, he registers love, he registers this, that, or the other attitude, and he examines himself in a glass to see how he does so. When he later makes use of the gesture it is present as a mental image. He realizes that that particular expression does call out fright. If we exclude vocal gestures, it is only by the use of the mirror that one could reach the position where he responds to his own gestures as other people respond. But the vocal gesture is one which does give one this capacity for answering to one's own stimulus as another would answer.

If there is any truth in the old axiom that the bully is always the coward, it will be found to rest on the fact that one arouses in himself that attitude of fear which his bullying attitude arouses in another, so that when put into a particular situation which calls his bluff, his own attitude is found to be that of the others. If one's own attitude of giving way to the bullying attitude of others is one that arouses the bullying attitude, he has in that degree aroused the attitude of bullying in himself. There is a certain amount of truth in this when we come back to the effect upon one's self of the gesture of which he makes use. Insofar as one calls out the attitude in himself that one calls out in others, the response is picked out and strengthened. That is the only basis for what we call imitation. It is not imitation in the sense of simply doing what one sees another person doing. The mechanism is that of an individual calling out in himself the response which he calls out in another, consequently giving greater

† When you put a sparrow and a canary together in neighboring cages and the call of one calls out a series of notes in the other.

weight to those responses than to the other responses, and gradually building up those sets of responses into a dominant whole. That may be done, as we say, unconsciously. The sparrow does not know it is imitating the canary. It is just a gradual picking up of the notes which are common to both of them. And that is true wherever there is imitation.

So far as exclamatory sounds are concerned (and they would answer in our own vocal gestures to what is found in those of animals), the response to these does not enter into immediate conversation, and the influence of these responses on the individual are comparatively slight. It seems to be difficult to bring them into relationship with significant speech. We are not consciously frightened when we speak angrily to someone else, but the meaning of what we say is always present to us when we speak. The response in the individual to an exclamatory cry which is of the same sort as that in the other does not play any important part in the conduct of the form. The response of the lion to its roar is of very little importance in the response of the form itself, but our response to the meaning of what we say is constantly attached to our conversation. We must be constantly responding to the gesture we make if we are to carry on successful vocal conversation. The meaning of what we are saying is the tendency to respond to it. You ask somebody to bring a visitor a chair. You arouse the tendency to get the chair in the other, but if he is slow to act you get the chair yourself. The response to the vocal gesture is the doing of a certain thing, and you arouse that same tendency in yourself. You are always replying to yourself, just as other people reply. You assume that in some degree there must be identity in the reply. It is action on a common basis.

I have contrasted two situations to show what a long road speech or communication has to travel from the situation where there is nothing but vocal cries over to the situation in which significant symbols are utilized. What is peculiar to the latter is that the individual responds to his own stimulus in the same way as other people respond. Then the stimulus becomes significant; then one is saying something. As far as a parrot is concerned, its "speech" means nothing, but where one significantly says something with his own vocal process he is saying it to himself as well as to everybody else within reach of his voice. It is only the vocal gesture that is fitted for this sort of communication, because it is only the vocal gesture to which one responds or tends to respond as another person tends to respond to it. It is true that the language of the hands is of the same character. One sees one's self using the gestures which those who are deaf make use of. They influence one the same way as they influence others. Of course, the same is true of any form of script. But such symbols have all been developed out of the specific vocal gesture, for that is the basic gesture which does influence the individual as it influences others. Where it does not become significant is in the vocalization of the two birds. Nevertheless, the same type of process is present, the stimulus of the one bird tending to call out the response in another bird which it tends to call out, however slightly, in the bird itself.

When we speak of the meaning of what we are doing we are making the response itself that we are on the point of carrying out a stimulus to our action. It becomes a stimulus to a later stage of action which is to take place from the point of view of this particular response. In the case of the boxer the blow that he is starting to direct toward his opponent is to call out a certain response which will open up the guard of his opponent so that he can strike. The meaning is a stimulus for the preparation of the real blow he expects to deliver. The response which he calls out in himself (the guarding reaction) is the stimulus

to him to strike where an opening is given. This action which he has initiated already in himself thus becomes a stimulus for his later response. He knows what his opponent is going to do, since the guarding movement is one which is already aroused, and becomes a stimulus to strike where the opening is given. The meaning would not have been present in his conduct unless it became a stimulus to strike where the favorable opening appears.

Such is the difference between intelligent conduct on the part of animals and what we call a reflective individual. We say the animal does not think. He does not put himself in a position for which he is responsible; he does not put himself in the place of the other person and say, in effect, "He will act in such a way and I will act in this way." If the individual can act in this way, and the attitude which he calls out in himself can become a stimulus to him for another act, we have meaningful conduct. Where the response of the other person is called out and becomes a stimulus to control his action, then he has the meaning of the other person's act in his own experience. That is the general mechanism of what we term "thought," for in order that thought may exist there must be symbols, vocal gestures generally, which arouse in the individual himself the response which he is calling out in the other, and such that from the point of view of that response he is able to direct his later conduct. It involves not only communication in the sense in which birds and animals communicate with each other, but also an arousal in the individual himself of the response which he is calling out in the other individual, a taking of the role of the other, a tendency to act as the other person acts. One participates in the same process the other person is carrying out and controls his action with reference to that participation. It is that which constitutes the meaning of an object, namely, the common response in one's self as well as in the other person, which becomes, in turn, a stimulus to one's self.

If you conceive of the mind as just a sort of conscious substance in which there are certain impressions and states, and hold that one of those states is a universal, then a word becomes purely arbitrary—it is just a symbol. You can then take words and pronounce them backwards, as children do; there seems to be absolute freedom of arrangement and language seems to be an entirely mechanical thing that lies outside of the process of intelligence. If you recognize that language is, however, just a part of a cooperative process, that part which does lead to an adjustment to the response of the other so that the whole activity can go on, then language has only a limited range of arbitrariness. If you are talking to another person you are, perhaps, able to scent the change in his attitude by something that would not strike a third person at all. You may know his mannerism, and that becomes a gesture to you, a part of the response of the individual. There is a certain range possible within the gesture as to what is to serve as the symbol. We may say that a whole set of separate symbols with one meaning are acceptable; but they always are gestures, that is, they are always parts of the act of the individual which reveal what he is going to do to the other person so that when the person utilizes the clew he calls out in himself the attitude of the other. Language is not ever arbitrary in the sense of simply denoting a bare state of consciousness by a word. What particular part of one's act will serve to direct cooperative activity is more or less arbitrary. Different phases of the act may do it. What seems unimportant in itself may be highly important in revealing what the attitude is. In that sense one can speak of the gesture itself as unimportant, but it is of great importance as to what the gesture is going to reveal.

This is seen in the difference between the purely intellectual character of the symbol and its emotional character. A poet depends upon the latter; for him language is rich and full of values which we, perhaps, utterly ignore. In trying to express a message in something less than ten words, we merely want to convey a certain meaning, while the poet is dealing with what is really living tissue, the emotional throb in the expression itself. There is, then, a great range in our use of language; but whatever phase of this range is used is a part of a social process, and it is always that part by means of which we affect ourselves as we affect others and mediate the social situation through this understanding of what we are saying. That is fundamental for any language; if it is going to be language one has to understand what he is saying, has to affect himself as he affects others.

The fundamental difference between the game and play is that in the latter the child must have the attitude of all the others involved in that game. The attitudes of the other players which the participant assumes organize into a sort of unit, and it is that organization which controls the response of the individual. The illustration used was of a person playing baseball. Each one of his own acts is determined by his assumption of the action of the others who are playing the game. What he does is controlled by his being everyone else on that team, at least insofar as those attitudes affect his own particular response. We get then an "other" which is an organization of the attitudes of those involved in the same process.

The organized community or social group which gives to the individual his unity of self may be called "the generalized other." The attitude of the generalized other is the attitude of the whole community. Thus, for example, in the case of such a social group as a ball team, the team is the generalized other insofar as it enters—as an organized process or social activity—into the experience of any one of the individual members of it.

If the given human individual is to develop a self in the fullest sense, it is not sufficient for him merely to take the attitudes of other human individuals toward himself and toward one another within the human social process, and to bring that social process as a whole into his individual experience merely in these terms: he must also, in the same way that he takes the attitudes of other individuals toward himself and toward one another, take their attitudes toward the various phases or aspects of the common social activity or set of social undertakings in which, as members of an organized society or social group, they are all engaged; and he must then, by generalizing these individual attitudes of that organized society or social group itself, as a whole, act toward different social projects which at any given time it is carrying out, or toward the various larger phases of the general social process which constitutes its life and of which these projects are specific manifestations. This getting of the broad activities of any given social whole or organized society as such within the experiential field of any one of the individuals involved or included in that whole is, in other words, the essential basis and prerequisite of the fullest development of that individual's self: only insofar as he takes the attitudes of the organized social group to which he belongs toward the organized, cooperative social activity or set of such activities in which that group as such is engaged, does he develop a complete self or possess the sort of complete self he has developed. And on the other hand, the complex cooperative processes and activities and institutional functionings of organized human society are also possible only insofar as every individual involved in them or belonging to that society can take the general attitudes of all other such individuals with reference to these processes and activities and in-

stitutional functionings, and to the organized social whole of experiential relations and interactions thereby constituted—and can direct his own behavior accordingly.

It is in the form of the generalized other that the social process influences the behavior of the individuals involved in it and carrying it on, i.e., that the community exercises control over the conduct of its individual members; for it is in this form that the social process or community enters as a determining factor into the individual's thinking. In abstract thought the individual takes the attitude of the generalized other toward himself, without reference to its expression in any particular other individuals; and in concrete thought he takes that attitude insofar as it is expressed in the attitudes toward his behavior of those other individuals with whom he is involved in the given social situation or act. But only by taking the attitude of the generalized other toward himself, in one or another of these ways, can he think at all; for only thus can thinking—or the internalized conversation of gestures which constitutes thinking—occur. And only through the taking by individuals of the attitude or attitudes of the generalized other toward themselves is the existence of a universe of discourse, as that system of common or social meanings which thinking presupposes at its context, rendered possible.

The self-conscious human individual, then, takes or assumes the organized social attitudes of the given social group or community (or of some one section thereof) to which he belongs, toward the social problems of various kinds which confront that group or community at any given time, and which arise in connection with the correspondingly different social projects or organized cooperative enterprises in which that group or community as such is engaged; and as an individual participant in these social projects or cooperative enterprises, he governs his own conduct accordingly. In politics, for example, the individual identifies himself with an entire political party and takes the organized attitudes of that entire party toward the rest of the given social community and toward the problems which confront the party within the given social situation; and he consequently reacts or responds in terms of the organized attitudes of the party as a whole. He thus enters into a special set of social relations with all the other individuals who belong to that political party; and in the same way he enters into various other special sets of social relations, with various other classes of individuals respectively, the individuals of each of these classes being the other members of some one of the particular, organized subgroups (determined in socially functional terms) of which he himself is a member within the entire given society or social community. In the most highly developed, organized, and complicated human social communities—those evolved by civilized man—these various socially functional classes or subgroups of individuals to which any given individual belongs (and with the other individual members of which he thus enters into a special set of social relations) are of two kinds. Some of them are concrete social classes or subgroups, such as political parties, clubs, corporations, which are all actually functional social units, in terms of which their individual members are directly related to one another. The others are abstract social classes or subgroups, such as the class of debtors and the class of creditors, in terms of which their individual members are related to one another only more or less indirectly, and which only more or less indirectly function as social units, but which afford or represent unlimited possibilities for the widening and ramifying and enriching of the social relations among all the individual members of the given society as an organized and unified whole. The given individual's member-

ship in several of these abstract social classes or subgroups makes possible his entrance into definite social relations (however indirect) with an almost infinite number of other individuals who also belong to or are included within one or another of these abstract social classes or subgroups cutting across functional lines of demarcation which divide different human social communities from one another, and including individual members from several (in some cases from all) such communities. Of these abstract social classes or subgroups of human individuals the one which is most inclusive and extensive is, of course, the one defined by the logical universe of discourse (or system of universally significant symbols) determined by the participation and communicative interaction of individuals; for of all such classes or subgroups, it is the one which claims the largest number of individual members, and which enables the largest conceivable number of human individuals to enter into some sort of social relation, however indirect or abstract it may be, with one another—a relation arising from the universal functioning of gestures as significant symbols in the general human social process of communication.

I have pointed out, then, that there are two general stages in the full development of the self. At the first of these stages, the individual's self is constituted simply by an organization of the particular attitudes of other individuals toward himself and toward one another in the specific social acts in which he participates with them. But at the second stage in the full development of the individual's self that self is constituted not only by an organization of these particular individual attitudes, but also by an organization of the social attitudes of the generalized other or the social group as a whole to which he belongs. These social or group attitudes are brought within the individual's field of direct experience, and are included as elements in the structure or constitution of his self, in the same way that the attitudes of particular other individuals are; and the individual arrives at them, or succeeds in taking them, by means of further organizing, and then generalizing, the attitudes of particular other individuals in terms of their organized social bearings and implications. So the self reaches its full development by organizing these individual attitudes of others into the organized social or group attitudes, and by thus becoming an individual reflection of the general systematic pattern of social or group behavior in which it and the others are all involved—a pattern which enters as a whole into the individual's experience in terms of these organized group attitudes which, through the mechanism of his central nervous system, he takes toward himself, just as he takes the individual attitudes of others.

The game has a logic, so that such an organization of the self is rendered possible: there is a definite end to be obtained; the actions of the different individuals are all related to each other with reference to that end so that they do not conflict; one is not in conflict with himself in the attitude of another man on the team. If one has the attitude of the person throwing the ball he can also have the response of catching the ball. The two are related so that they further the purpose of the game itself. They are interrelated in a unitary, organic fashion. There is a definite unity, then, which is introduced into the organization of other selves when we reach such a stage as that of the game, as over against the situation of play where there is a simple succession of one role after another, a situation which is, of course, characteristic of the child's own personality. The child is one thing at one time and another at another, and what he is at one moment does not determine what he is at another. That is both the charm of childhood as well as its inadequacy. You cannot count on the child; you cannot assume that all the

things he does are going to determine what he will do at any moment. He is not organized into a whole. The child has no definite character, no definite personality.

The game is then an illustration of the situation out of which an organized personality arises. Insofar as the child does take the attitude of the other and allows that attitude of the other to determine the thing he is going to do with reference to a common end, he is becoming an organic member of society. He is taking over the morale of that society and is becoming an essential member of it. He belongs to it insofar as he does allow the attitude of the other that he takes to control his own immediate expression. What is involved here is some sort of an organized process. That which is expressed in terms of the game is, of course, being continually expressed in the social life of the child, but this wider process goes beyond the immediate experience of the child himself. The importance of the game is that it lies entirely inside of the child's own experience, and the importance of our modern type of education is that it is brought as far as possible within this realm. The different attitudes that a child assumes are so organized that they exercise a definite control over his response, as the attitudes in a game control his own immediate response. In the game we get an organized other, a generalized other, which is found in the nature of the child itself, and finds its expression in the immediate experience of the child. And it is that organized activity in the child's own nature controlling the particular response which gives unity, and which builds up his own self.

What goes on in the game goes on in the life of the child all the time. He is continually taking the attitudes of those about him, especially the roles of those who in some sense control him and on whom he depends. He gets the function of the process in an abstract sort of a way at first. It goes over from the play into the game in a real sense. He has to play the game. The morale of the game takes hold of the child more than the larger morale of the whole community. The child passes into the game and the game expresses a social situation in which he can completely enter; its morale may have a greater hold on him than that of the family to which he belongs or the community in which he lives. There are all sorts of social organizations, some of which are fairly lasting, some temporary, into which the child is entering, and he is playing a sort of social game in them. It is a period in which he likes "to belong," and he gets into organizations which come into existence and pass out of existence. He becomes a something which can function in the organized whole, and thus tends to determine himself in his relationship with the group to which he belongs. That process is one which is a striking stage in the development of the child's morale. It constitutes him a self-conscious member of the community to which he belongs.

Such is the process by which a personality arises. I have spoken of this as a process in which a child takes the role of the other, and said that it takes place essentially through the use of language. Language is predominantly based on the vocal gesture by means of which cooperative activities in a community are carried out. Language in its significant sense is that vocal gesture which tends to arouse in the individual the attitude which it arouses in others, and it is this perfecting of the self by the gesture which mediates the social activities that gives rise to the process of taking the role of the other. The latter phrase is a little unfortunate because it suggests an actor's attitude which is actually more sophisticated than that which is involved in our own experience. To this degree it does not correctly describe that which I have in mind. We see the process most definitely in a primitive form in those

situations where the child's play takes different roles. Here the very fact that he is ready to pay out money, for instance, arouses the attitude of the person who receives money; the very process is calling out in him the corresponding activities of the other person involved. The individual stimulates himself to the response which he is calling out in the other person, and then acts in some degree in response to that situation. In play the child does definitely act out the role which he himself has aroused in himself. It is that which gives, as I have said, a definite content in the individual which answers to the stimulus that affects him as it affects somebody else. The content of the other that enters into one personality is the response in the individual which his gesture calls out in the other.

We may illustrate our basic concept by a reference to the notion of property. If we say "This is my property, I shall control it," that affirmation calls out a certain set of responses which must be the same in any community in which property exists. It involves an organized attitude with reference to property which is common to all the members of the community. One must have a definite attitude of control of his own property and respect for the property of others. Those attitudes (as organized sets of responses) must be there on the part of all, so that when one says such a thing he calls out in himself the response of the others. He is calling out the response of what I have called a generalized other. That which makes society possible is such common responses, such organized attitudes, with reference to what we term property, the cults of religion, the process of education, and the relations of the family. Of course, the wider the society the more definitely universal these objects must be. In any case there must be a definite set of responses, which we may speak of as abstract, and which can belong to a very large group. Property is in itself a very abstract concept. It is that which the individual himself can control and nobody else can control. The attitude is different from that of a dog toward a bone. A dog will fight any other dog trying to take the bone. The dog is not taking the attitude of the other dog. A man who says "This is my property" is taking an attitude of the other person. The man is appealing to his rights because he is able to take the attitude which everybody else in the group has with reference to property, thus arousing in himself the attitude of others.

What goes to make up the organized self is the organization of the attitudes which are common to the group. A person is a personality because he belongs to a community, because he takes over the institutions of that community into his own conduct. He takes its language as a medium by which he gets his personality, and then through a process of taking the different roles that all the others furnish he comes to get the attitude of the members of the community. Such, in a certain sense, is the structure of a man's personality. There are certain common responses which each individual has toward certain common things, and insofar as those common responses are awakened in the individual when he is affecting other persons he arouses his own self. The structure, then, on which the self is built is this response which is common to all, for one has to be a member of a community to be a self. Such responses are abstract attitudes, but they constitute just what we term a man's character. They give him what we term his principles, the acknowledged attitudes of all members of the community toward what are the values of that community. He is putting himself in the place of the generalized other, which represents the organized responses of all the members of the group. It is that which guides conduct controlled by principles, and a person who has such an organized group of responses is a man who we say has character, in the moral sense.

It is a structure of attitudes, then, which goes to make up a self, as distinct from a group of habits. We all of us have, for example, certain groups of habits, such as the particular intonations which a person uses in his speech. This is a set of habits of vocal expression which one has but which one does not know about. The sets of habits which we have of that sort mean nothing to us; we do not hear the intonations of our speech that others hear unless we are paying particular attention to them. The habits of emotional expression which belong to our speech are of the same sort. We may know that we have expressed ourselves in a joyous fashion but the detailed process is one which does not come back to our conscious selves. There are whole bundles of such habits which do not enter into a conscious self, but which help to make up what is termed the unconscious self.

After all, what we mean by self-consciousness is an awakening in ourselves of the group of attitudes which we are arousing in others, especially when it is an important set of responses which go to make up the members of the community. It is unfortunate to fuse or mix up consciousness, as we ordinarily use that term, and self-consciousness. Consciousness, as frequently used, simply has reference to the field of experience, but self-consciousness refers to the ability to call out in ourselves a set of definite responses which belong to the others of the group. Consciousness and self-consciousness are not on the same level. A man alone has, fortunately or unfortunately, access to his own toothache, but that is not what we mean by self-consciousness.

I have so far emphasized what I have called the structures upon which the self is constructed, the framework of the self, as it were. Of course we are not only what is common to all: each one of the selves is different from everyone else; but there has to be such a common structure as I have sketched in order that we may be members of a community at all. We cannot be ourselves unless we are also members in whom there is a community of attitudes which control the attitudes of all. We cannot have rights unless we have common attitudes. That which we have acquired as self-conscious persons makes us such members of society and gives us selves. Selves can only exist in definite relationships to other selves. No hard-and-fast line can be drawn between our own selves and the selves of others, since our own selves exist and enter as such into our experience only insofar as the selves of others exist and enter as such into our experience also. The individual possesses a self only in relation to the selves of the other members of his social group; and the structure of his self expresses or reflects the general behavior pattern of this social group to which he belongs, just as does the structure of the self of every other individual belonging to this social group.

2.

MEANING, SYMBOLS, AND LEVELS OF ABSTRACTION

By S. I. Hayakawa

Extensional and Intensional Meaning

From this point on, it will be necessary to employ some special terms in talking about meaning: *extensional meaning*, which will also be referred to as *denotation*, and *intensional meaning*—note the *s*—which will also be referred to as *connotation*.[1] Briefly explained, the extensional meaning of an utterance is that which it *points to* or denotes in the extensional world. That is to say, the extensional meaning is something that *cannot be expressed in words*, because it is that which words stand for. An easy way to remember this is to put your hand over your mouth and point whenever you are asked to give an extensional meaning.

The *intensional meaning* of a word or expression, on the other hand, is that which is *suggested* (connoted) inside one's head. Roughly speaking, whenever we express the meaning of words by uttering more words, we are giving intensional meaning, or connotations. To remember this, put your hand over your eyes and let the words spin around in your head.

Utterances may have, of course, both extensional and intensional meaning. If they have no intensional meaning at all—that is, if they start no notions whatever spinning about in our heads—they are meaningless noises, like foreign languages that we do not understand. On the other hand, it is possible for utterances to have no extensional meaning at all, in spite of the fact that they may start many notions spinning about in our heads. Since this point will be discussed more fully elsewhere, perhaps one example will be enough: the statement, "Angels watch over my bed at night," is one that has intensional but no extensional meaning. This does not mean that there are no angels watching over my bed at night. When we say that the statement has no extensional meaning, we are merely saying that we cannot see, touch, photograph, or in any scientific manner detect the presence of angels. The result is that, if an argument begins on the subject whether or not angels watch over my bed, *there is no way of ending the argument to the satisfaction of all disputants*, the Christians and the non-Christians, the pious and the agnostic, the mystical and the scientific. Therefore, whether we believe in angels or not, knowing in advance that any argument on the subject will be both endless and futile, we can avoid getting into fights about it.

When, on the other hand, statements have extensional content, as when we say, "This room is fifteen feet long," arguments can come to a close. No matter how many guesses there are about the length of the room, all discussion ceases when someone produces a tape measure. This, then, is the important difference between extensional and intensional meanings: namely, when utterances have extensional meanings, discussion can be ended and agreement reached; when utterances have intensional meanings only and no extensional meanings,

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[1] The words *extension* and *intension* are borrowed from logic; *denotation* and *connotation* are borrowed from literary criticism. The former pair of terms will ordinarily be used, therefore, when we are talking about people's "thinking habits"; the latter, when we are talking about words themselves.

arguments may, and often do, go on indefinitely. Such arguments can result only in irreconcilable conflict. Among individuals, they may result in the breaking up of friendships; in society, they often split organizations into bitterly opposed groups; among nations, they may aggravate existing tensions so seriously as to become contributory causes of war.

Arguments of this kind may be termed "non-sense arguments," because they are based on utterances about which no sense data can be collected. Needless to say, there are occasions when the hyphen may be omitted—that depends on one's feelings toward the particular argument under consideration. The reader is requested to provide his own examples of "non-sense arguments." Even the foregoing example of the angels may give offense to some people, in spite of the fact that no attempt is made to deny or affirm the existence of angels. He can imagine, therefore, the uproar that might result from giving a number of examples, from theology, politics, law, economics, literary criticism, and other fields in which it is not customary to distinguish clearly sense from non-sense.

The "One Word, One Meaning" Fallacy

Everyone, of course, who has ever given any thought to the meanings of words has noticed that they are always shifting and changing in meaning. Usually, people regard this as a misfortune, because it "leads to sloppy thinking" and "mental confusion." To remedy this condition, they are likely to suggest that we should all agree on "one meaning" for each word and use it only with that meaning. Thereupon it will occur to them that we simply cannot make people agree in this way, even if we could set up an ironclad dictatorship under a committee of lexicographers who could place censors in every newspaper office and dictaphones in every home. The situation, therefore, appears hopeless.

Such an impasse is avoided when we start with a new premise altogether—one of the premises upon which modern linguistic thought is based: namely, *that no word ever has exactly the same meaning twice.* The extent to which this premise fits the facts can be demonstrated in a number of ways. First, if we accept the proposition that the contexts of an utterance determine its meaning, it becomes apparent that since no two contexts are ever *exactly* the same, no two meanings can ever be exactly the same. How can we "fix the meaning" even for as common an expression as "to believe in" when it can be used in such sentences as the following?

I *believe in* you (I have confidence in you).
I *believe in* democracy (I accept the principles implied by the term democracy).
I *believe in* Santa Claus (It is my opinion that Santa Claus exists).

Secondly, we can take for example a word of "simple" meaning like "kettle." But when John says "kettle," its intensional meanings to him are the common characteristics of all the kettles John remembers. When Peter says "kettle," however, its intensional meanings to him are the common characteristics of all the kettles he remembers. *No matter how small or how negligible the differences may be between John's "kettle" and Peter's "kettle," there is some difference.*

Finally, let us examine utterances in terms of extensional meanings. If John, Peter, Harold, and George each say "my typewriter," we would have to point to *four different typewriters* to get the extensional meaning in each case: John's new Underwood, Peter's old Corona, Harold's L. C. Smith, and the undenotable intended "typewriter" that George plans some day to buy: "My typewriter, when I buy one, will be a noiseless." Also, if John says "my typewriter" today, and again "my typewriter" tomorrow, the extensional meaning is different in the two cases, because the typewriter is not

exactly the same from one day to the next (nor from one minute to the next): slow processes of wear, change, and decay are going on constantly. Although we can say, then, that the differences in the meanings of a word on one occasion, on another occasion a minute later, and on still another occasion another minute later, are *negligible*, we cannot say that the meanings are *exactly* the same.

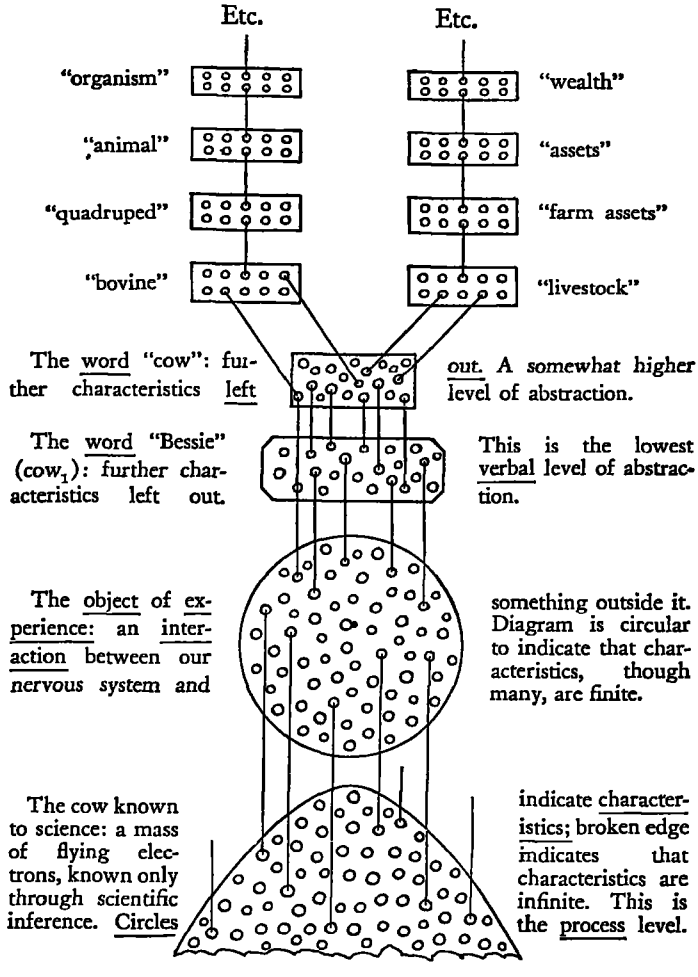
Bessie, the Cow

The universe is in a perpetual state of flux. The stars are in constant motion, growing, cooling, exploding. The earth itself is not unchanging; mountains are being worn away, rivers are altering their channels, valleys are deepening. All life is also a process of change, through birth, growth, decay, and death. Even what we used to call "inert matter"—chairs and tables and stones—is not inert, as we now know, for, at the submicroscopic level, they are whirls of electrons. If a table looks today very much as it did yesterday or as it did a hundred years ago, it is not because it has not changed, but because the changes have been too minute for our coarse perceptions. To modern science there is no "solid matter." If matter looks "solid" to us, it does so only because its motion is too rapid or too minute to be felt. It is "solid" only in the sense that a rapidly rotating color chart is "white" or a rapidly spinning top is "standing still." Our senses are extremely limited, so that we constantly have to use instruments such as microscopes, telescopes, speedometers, stethoscopes, and seismographs to detect and record occurrences which our senses are not able to record directly. The way in which we happen to see and feel things is the result of the peculiarities of our nervous systems. There are "sights" we cannot see, and, as even children know today with their high-frequency dog whistles, "sounds" that we cannot hear. It is absurd, therefore, to imagine that we ever perceive anything "as it really is."

Inadequate as our senses are, with the help of instruments they tell us a great deal. The discovery of microorganisms with the use of the microscope has given us a measure of control over bacteria; we cannot see, hear, or feel radio waves, but we can create and transform them to useful purpose. Most of our conquest of the external world, in engineering, in chemistry, and in medicine, is due to our use of mechanical contrivances of one kind or another to increase the capacity of our nervous systems. In modern life, our unaided senses are not half enough to get us about in the world. We cannot even obey speed laws or compute our gas and electric bills without mechanical aids to perception.

To return, then, to the relations between words and what they stand for, let us say that there is before us "Bessie," a cow. Bessie is a living organism, constantly changing, constantly ingesting food and air, transforming it, getting rid of it again. Her blood is circulating, her nerves are sending messages. Viewed microscopically, she is a mass of variegated corpuscles, cells, and bacterial organisms; viewed from the point of view of modern physics, she is a perpetual dance of electrons. What she is in her entirety, we can never know; even if we could at any precise moment say what she was, at the next moment she would have changed enough so that our description would no longer be accurate. It is impossible to say completely what Bessie or anything else really *is*. Bessie is no static "object," but a dynamic *process*.

The Bessie that we experience, however, is something else again. We experience only a small fraction of the total Bessie: the lights and shadows of her exterior, her motions, her general configuration, the noises she makes, and the sensations she presents to our sense of touch. *And because of our previous experience, we observe resemblances in her to certain other animals to which, in the past, we have applied the word "cow."*



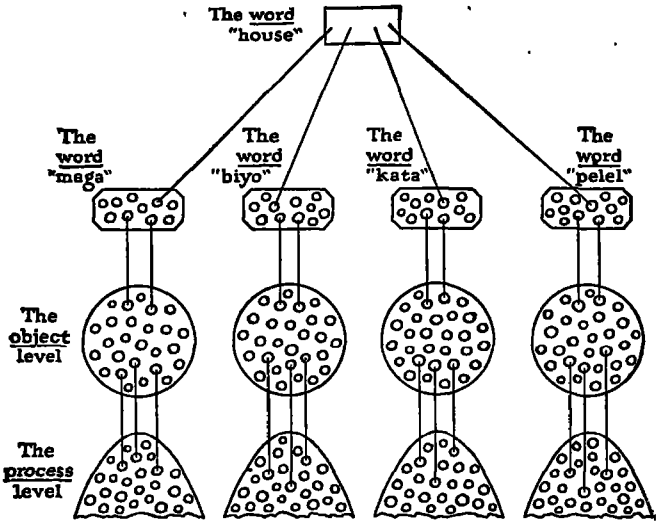
The Abstraction Ladder.[a] (Start reading from bottom Up.)

[a] Adapted, by kind permission, from the "Structural Differential," copyrighted by A. Korzybski.

The Process of Abstracting

The "object" of our experience, then, is not the "thing in itself," but *an interaction between our nervous systems (with all their imperfections) and something outside them.* Bessie is unique—there is nothing else in the universe exactly like her in all respects. But our nervous systems, automatically *abstracting* or selecting from the process-Bessie those features of hers in which she resembles other animals of like size, functions, and habits, *classify* her as "cow."

When we say, then, that "Bessie is a cow," we are only noting the process-Bessie's resemblances to other "cows" and *ignoring differences.* What is more, we are leaping a huge chasm: from the dynamic process-Bessie, a whirl of electro-chemico-neural eventfulness, to a relatively static "idea," "concept," or *word*, "cow." The reader is referred to the diagram entitled "The Abstraction



Adapted, by kind permission, from *Science and Sanity* by A. Korzybski.

Ladder," which he will find on page 193.

As the diagram illustrates, the "object" we see is an abstraction of the lowest level, but it is still an abstraction, since it leaves out characteristics of the process that is the real Bessie. The *word* "Bessie" (cow_1) is the lowest *verbal* level of abstraction, leaving out further characteristics—the differences between Bessie yesterday and Bessie today, between Bessie today and Bessie tomorrow—and selecting only the similarities. The word "cow" selects only the similarities between Bessie (cow_1), Daisy (cow_2), Rosie (cow_3), and so on, and therefore leaves out still more about Bessie. The word "livestock" selects or abstracts only the features that Bessie has in common with pigs, chickens, goats, and sheep. The term "farm asset" abstracts only the features Bessie has in common with barns, fences, livestock, furniture, generating plants, and tractors, and is therefore on a very high level of abstraction. A branch line has been drawn in the diagram to indicate the fact that in discussing Bessie for different purposes abstracting may be done in different ways. This point will be discussed more fully below.

Why We Must Abstract

This process of abstracting, of leaving characteristics out, is an indispensable convenience. To illustrate by still another example, suppose that we live in an isolated village of four families, each owning a house. A's house is referred to as *maga;* B's house is *biyo;* C's is *kata,* and D's is *pelel.* This is quite satisfactory for ordinary purposes of communication in the village, unless a discussion arises about building a new house—a spare one, let us say. We cannot refer to the projected house by any one of the four words we have for the existing houses, since each of these has too specific a meaning. We must find a *general* term, at a higher level of abstraction, that means "something that has certain characteristics in common with *maga, biyo, kata,* and *pelel,* and yet is not A's, B's, C's, or D's." Since this is much too complicated to say each time, an *abbreviation* must be invented. Let us say we choose the noise, *house.* Out of such needs do our words come—they are a form of shorthand. The

invention of a new abstraction is a great step forward, since it *makes discussion possible*—as, in this case, not only the discussion of a fifth house, but of all future houses we may build or see in our travels or dream about. There is no such *thing* as "a house." "A house" is an abstraction. There are only houses—$house_1$, $house_2$, $house_3$, and so on—each one distinct, each with characteristics not possessed by other houses.

The indispensability of this process of abstracting can again be illustrated by what we do when we "calculate." The word "calculate" originates from the Latin word *calculus*, meaning "pebble," and comes to have its present meaning from such ancient practices as that of putting a pebble into a box for each sheep as it left the fold, so that one could tell, by checking the sheep returning at night against the pebbles, whether any had been lost. Primitive as this example of calculation is, it will serve to show why mathematics works. Each pebble is, in this example, an abstraction representing the "oneness" of each sheep—its numerical value. And because we are abstracting from extensional events on clearly understood and uniform principles, the numerical facts about the pebbles are also, barring unforeseen circumstances, numerical facts about the sheep. Our x's and y's and other mathematical symbols are similar abstractions, although of still higher level. And they are useful in predicting occurrences and in getting work done because, since they are abstractions properly and uniformly made from starting points in the extensional world, the relations revealed by the symbols will be, again barring unforeseen circumstances, relations existing in the extensional world.

On Definitions

Definitions, contrary to popular opinion, tell us nothing about things. They only describe people's linguistic habits; that is, they tell us what noises people make under what conditions. Definitions should be understood as *statements about language.*

House. This is a word, at the next higher level of abstraction, that can be substituted for the more cumbersome expression, "Something that has characteristics in common with Bill's bungalow, Jordan's cottage, Mrs. Smith's tourist home, Dr. Jones's mansion . . ."

Red. A feature that rubies, roses, ripe tomatoes, robins' breasts, uncooked beef, and lipsticks have in common is abstracted, and this word expresses that abstraction.

Kangaroo. Where the biologist would say "herbivorous mammal, a marsupial of the family Macropodidae," ordinary people say "kangaroo."

Now it will be observed that while the definitions of "house" and "red" given here point *down* the abstraction ladder (see the charts) to *lower* levels of abstraction, the definition of "kangaroo" remains at the same level. That is to say, in the case of "house," we could if necessary go and *look* at Bill's bungalow, Jordan's cottage, Mrs. Smith's tourist home, and Dr. Jones's mansion, and figure out for ourselves what features they seem to have in common; in this way, we might begin to understand under what conditions to use the word "house." But all we know about "kangaroo" from the above is that where some people say one thing, other people say another. That is, when we stay at the *same* level of abstraction in giving a definition, we do not give any information, unless, of course, the listener or reader is already sufficiently familiar with the defining words so that he can work himself down the abstraction ladder. Dictionaries, in order to save space, have to assume in many cases such familiarity with the language on the part of the reader. But where the assumption is unwarranted, definitions at the same level of abstraction are worse than useless. Looking up "indifference" in some cheap pocket dictionaries, we find it defined as "apathy"; we look up

"apathy" and find it defined as "indifference."

Even more useless, however, are the definitions that go *up* the abstraction ladder to *higher* levels of abstraction—the kind most of us tend to make automatically. Try the following experiment on an unsuspecting friend:

"What is meant by the word *red?*"
"It's a color."
"What's a *color?*"
"Why, it's a quality things have."
"What's a *quality?*"
"Say, what are you trying to do, anyway?"

You have pushed him into the clouds. He is lost.

If, on the other hand, we habitually go *down* the abstraction ladder to *lower* levels of abstraction when we are asked the meaning of a word, we are less likely to get lost in verbal mazes; we will tend to "have our feet on the ground" and know what we are talking about. This habit displays itself in an answer such as this:

"What is meant by the word *red?*"
"Well, the next time you see a bunch of cars stopped at an intersection, look at the traffic light facing them. Also, you might go to the fire department and see how their trucks are painted."

Chasing Oneself in Verbal Circles

In other words, the kind of "thinking" we must be extremely wary of is that which *never* leaves the higher verbal levels of abstraction, the kind that never points *down* the abstraction ladder to lower levels of abstraction and from there to the extensional world:

"What do you mean by *democracy?*"
"Democracy means the preservation of human rights."
"What do you mean by *rights?*"
"By rights I mean those privileges God grants to all of us—I mean man's inherent privileges."
"Such as?"
"Liberty, for example."
"What do you mean by *liberty?*"
"Religious and political freedom."
"And what does that mean?"
"Religious and political freedom is what we have when we do things the democratic way."

Of course it is possible to talk meaningfully about democracy, as Jefferson and Lincoln have done, as Charles and Mary Beard do in *The Rise of American Civilization*, as Frederick Jackson Turner does in *The Frontier in American History*, as Lincoln Steffens does in his *Autobiography*, as Thurman Arnold does in *The Bottlenecks of Business*—to name only the first examples that come to mind—but such a sample as the above is not the way to do it. The trouble with speakers who never leave the higher levels of abstraction is not only that they fail to notice when they are saying something and when they are not; they also produce a similar lack of discrimination in their audiences. Never coming down to earth, they frequently chase themselves around in verbal circles, unaware that they are making meaningless noises.

This is by no means to say, however, that we must never make extensionally meaningless noises. When we use directive language, when we talk about the future, when we utter ritual language or engage in social conversation, and when we express our feelings, we are usually making utterances that have no extensional verifiability. It must not be overlooked that our highest ratiocinative and imaginative powers are derived from the fact that symbols *are* independent of things symbolized, so that we are free not only to go quickly from low to extremely high levels of abstraction (from "canned peas" to "groceries" to "commodities" to "national wealth") and to manipulate symbols even when the things they stand for cannot be so manipulated ("If all the freight cars in the country were hooked up to each other in one long line . . ."), but we are also free

to manufacture symbols at will even if they stand only for abstractions made from other abstractions and not for anything in the extensional world. Mathematicians, for example, often play with symbols that have no extensional content, just to find out what can be done with them; this is called "pure mathematics." And pure mathematics is far from being a useless pastime, because mathematical systems that are elaborated with no extensional application in mind often prove later to be applicable in useful and unforeseen ways. Mathematicians, however, when they are dealing with extensionally meaningless symbols, usually know what they are doing. We likewise *must* know what we are doing.

Nevertheless, all of us (including mathematicians), when we speak the language of everyday life, often make meaningless noises without knowing that we are doing so. We have already seen what confusions this can lead to. The fundamental purpose of the abstraction ladder, as shown both in this chapter and the next, is to make us aware of the process of abstracting.

Confusing Higher Levels of Abstraction

But words, as we have seen by means of the abstraction ladder, are still higher levels of abstraction than the "objects" of experience. The more words at extremely high levels of abstraction we have, then, the more conscious we must be of this process of abstracting. For example, the word "rattlesnake" leaves out every important feature of the actual rattlesnake. But if the word is vividly remembered as part of a whole complex of terrifying experiences with an actual rattlesnake, the word itself is capable of arousing the same feelings as an actual rattlesnake. There are people, therefore, who turn pale at the *word*.

This, then, is the origin of word-magic. The word "rattlesnake" and the actual creature are felt to be *one and the same thing*, because they arouse the same feelings. This sounds like nonsense, of course, and it is nonsense. But from the point of view of a childish logic, it has its justification. As Lévy-Bruhl explains in his *How Natives Think*, primitive "logic" works on such a principle. The creature frightens us; the word frightens us; therefore the creature and the word are "the same"—not actually the same, perhaps, but there is a "mystic connection" between the two. This sense of "mystic connection" is Lévy-Bruhl's term for what we have called "necessary connection" in our discussion of linguistic naïveté. In this way, "mystical power" is attributed to words. There come to be "fearful words," "forbidden words," "unspeakable words"—words taking on the characteristics of the things they stand for. Such feelings as these about the power of words are, as we have already seen, probably in part responsible for such social phenomena as the strenuous campaign in the early 1930's to bring back prosperity through frequent reiteration of the *words*, "Prosperity is around the corner!"

The commonest form of this confusion of levels of abstraction, however, is illustrated by our reacting to the twenty-second Republican we encounter in our lives as if he were identical with the abstraction "Republican" inside our heads. "If he's Republican, he must be O.K.—or terrible," we are likely to say, confusing the extensional Republican with our abstraction "Republican," which is the product not only of the last twenty-one "Republicans" we have met, but also of all that we have been *told* about "Republicans."

"Jews"

To make the principles clearer, we shall use an example that is loaded with prejudices for many people: "Mr. Miller is a *Jew*." To such a statement, some "Christians" have a marked signal reac-

tion, which may take such forms as these: automatically deciding that Mr. Miller is not the kind of person one likes to meet socially, although, of course, one cannot help running into "Jews" in business; automatically excluding him from tenancy in the apartment house one owns or from membership in the fraternity or country club one belongs to; automatically putting oneself on guard against his expected sharp financial practices; automatically suspecting his political views of being "tinged with communism"; automatically shrinking away.

That is to say, a "Christian" of this kind confuses his high-level abstraction, "Jew," with the extensional Mr. Miller and behaves towards Mr. Miller as if he were identical with that abstraction. (See the abstraction ladder, page 193.)

Now it happens that the word "Jew," as the result of a number of historical accidents, has powerful affective connotations in Christian culture. Jews, a small minority in medieval Christendom, were the only people legally permitted to lend money at interest because of the Christian proscriptions against usury. They were excluded from agriculture and from most professions because they were "non-Christians." As non-Christians they were regarded by the ignorant and the superstitious with terror. Nevertheless, a few Jews *had* to be tolerated, because moneylenders were necessary to the development of business. It became the standard practice of Christians, therefore, to borrow money from Jews to satisfy their business requirements, meanwhile calling them names to satisfy their consciences—just as, during Prohibition in the United States, it was a fairly common practice to patronize bootleggers to satisfy one's thirst, meanwhile denouncing them for "lawlessness" on all public occasions to satisfy one's conscience. Furthermore, many princes and noblemen who owed large sums of money to Jews made the happy discovery that it was easy to avoid the payment of their debts by arousing the superstitious populace to torturing and massacring the Jews on the pretext of "holy crusades." After such incidents, the Jews would be either dead or willing to cancel the debts owed them in order to save their lives. Such business risks would further increase the interest rates, even as the risk of police raids increased the price of bootleg liquor. The increased interest rates would further infuriate the Christians. The word "Jew," therefore, came to have increasingly powerful affective connotations, expressing at once the terror felt by Christians toward non-Christians and the resentment felt by people everywhere toward moneylenders, who are always felt to be "grasping," "unscrupulous," and "cunning." The moral objections to moneylending disappeared, of course, especially after people began to found new forms of Christianity, partly in order that they might freely engage in that profession. Nevertheless, the affective connotations of the word "Jew" survived and have remained, even to this day. They reveal their continued existence in such uses of the term as these: "He *jewed* me out of ten dollars," "Go on and give him some money; don't be such a *Jew*," "He *jewed* down the price." In some circles, it is not uncommon for mothers to discipline disobedient children by saying to them, "If you don't behave, I'll sell you to the *Jew man*."

Let us return now to our hypothetical Mr. Miller, who has been introduced as a "Jew." To a person for whom these affective connotations are very much alive—and there are many such—and who habitually confuses that which is inside his nervous system with that which is outside, Mr. Miller is a man "not to be trusted." If Mr. Miller succeeds in business, that "proves" that "Jews are smart"; if Mr. Johansen succeeds in business, it only proves that Mr. Johansen is smart. If Mr. Miller fails in business, it is alleged that he never-

theless has "money salted away somewhere." If Mr. Miller is strange or foreign in his habits, that "proves" that "Jews don't assimilate." If he is thoroughly American i.e., indistinguishable from other natives—he is "trying to pass himself off as one of us." If Mr. Miller fails to give to charity, that is because "Jews are tight"; if he gives generously, he is "trying to buy his way into society." If Mr. Miller lives in the Jewish section of town, that is because "Jews are so clannish"; if he moves to a locality where there are no other Jews, that is because "they try to horn in everywhere." In short, Mr. Miller is automatically condemned, no matter who he is or what he does.

But Mr. Miller may be, for all we know, rich or poor, a wife beater or a saint, a stamp collector or a violinist, a farmer or a physicist, a lens grinder or an orchestra leader. If, as the result of our signal reactions, we put ourselves on guard about our *money* immediately upon meeting Mr. Miller, we may offend a man from whom we might have profited financially, morally, or spiritually, or we may fail to notice his attempts to flirt with our wife—that is, we shall act with complete inappropriateness to the *actual* situation at hand. Mr. Miller is not identical with our notion of "Jew," *whatever our notion of "Jew" may be.* The "Jew," created by intensional definition of the *word, simply is not there.*

John Doe, the "Criminal"

Another instance of the confusion of levels of abstraction is to be found in cases like this: Let us say that here is a man, John Doe, who is introduced as one "who has just been released after three years in the penitentiary." This is already on a fairly high level of abstraction, but it is nevertheless a *report.* From this point, however, many people *immediately and unconsciously* climb to still higher levels of abstraction: "John Doe is an *ex-convict* . . . he's a *criminal!*" But the word "criminal" is not only on a much higher level of abstraction than "the man who spent three years in the penitentiary," but it is also, as we have seen elsewhere, a *judgment,* with the implication, "He has committed a crime in the past and will probably commit more crimes in future." The result is that when John Doe applies for a job and is forced to state that he has spent three years in the penitentiary, prospective employers, automatically confusing levels of abstraction, may say to him, "You can't expect me to give jobs to criminals!"

John Doe, for all we know from the report, may have undergone a complete reformation or, for that matter, may have been unjustly imprisoned in the first place; nevertheless, he may wander in vain, looking for a job. If, in desperation, he finally says to himself, "If everybody is going to treat me like a criminal, I might as well become one," and goes out and commits a robbery, who is responsible for his act? Yet, if John Doe gets caught, those who refused to employ him say, on reading the papers about the robbery, "There, I told you so! Lucky I didn't hire that criminal!"

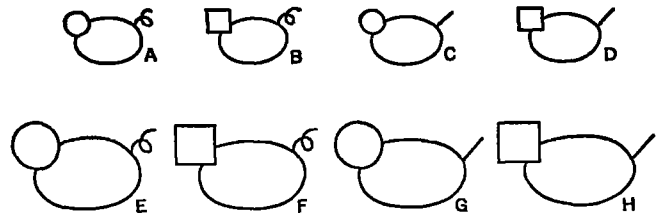
The reader is familiar with the way in which rumor grows as it spreads. Many of the exaggerations of rumor are again due to this inability on the part of some people to refrain from climbing to higher levels of abstraction—from reports to inferences to judgments—and then confusing the levels. According to this kind of "reasoning":

Report. "Mary Smith didn't get in until two last Saturday night."

Inference. "I bet she was out tearing around!"

Judgment. "She's a worthless hussy. I never did like the looks of her. I knew it the moment I first laid eyes on her."

Basing our actions towards our fellow human beings on such hastily abstracted judgments, it is no wonder that we fre-



quently make life miserable not only for others, but for ourselves.

As a final example of this type of confusion, *notice the difference between what happens when a man says to himself, "I have failed three times," and what happens when he says, "I am a failure!" It is the difference between sanity and self-destruction.*

Giving Things Names

The figure above shows eight objects, let us say animals, four large and four small, a different four with round heads and another four with square heads, and still another four with curly tails and another four with straight tails. These animals, let us say, are scampering about your village, but since at first they are of no importance to you, you ignore them. You do not even give them a name.

One day, however, you discover that the little ones eat up your grain, while the big ones do not. A differentiation sets itself up, and, abstracting the common characteristics of A, B, C, and D, you decide to call these *gogo;* E, F, G, and H you decide to call *gigi.* You chase away the *gogo,* but leave the *gigi* alone. Your neighbor, however, has had a different experience: he finds that those with square heads bite, while those with round heads do not. Abstracting the common characteristics of B, D, F, and H, he calls them *daba,* and A, C, E, and G he calls *dobo.* Still another neighbor discovers, on the other hand, that those with curly tails kill snakes, while those with straight tails do not. He differentiates them, abstracting still another set of common characteristics: A, B, E, and F are *busa,* while C, D, G, and H are *busana.*

Now imagine that the three of you are together when E runs by. You say, "There goes the *gigi";* your first neighbor says, "There goes the *dobo";* your other neighbor says, "There goes the *busa.*" Here immediately a great controversy arises. What is it *really,* a *gigi,* a *dobo,* or a *busa?* What is its *right name?* You are quarreling violently when along comes a fourth person from another village who calls it a *muglock,* an edible animal, as opposed to *uglock,* an inedible animal—which doesn't help matters a bit.

Of course, the question, "What is it *really?* What is its *right name?*" is a nonsense question. By a nonsense question is meant one that is not capable of being answered. Things can have "right names" only if there is a necessary connection between symbols and things symbolized, and we have seen that there is not. That is to say, in the light of your interest in protecting your grain, it may be necessary for you to distinguish the animal E as a *gigi;* your neighbor, who doesn't like to be bitten, finds it practical to distinguish it as a *dobo;* your other neighbor, who likes to see snakes killed, distinguishes it as a *busa.* What we call things and where we draw the line between one class of things and another depend upon the interests we have and the purposes of the classification. For example, animals are classified in one way by the meat industry, in a different way by the leather industry, in another different way by the fur industry, and in a still different way by the biologist.

None of these classifications is any more final than any of the others; each of them is useful for its purpose.

This holds, of course, regarding everything we perceive. A table "is" a table to us, because we can understand its relationship to our conduct and interests; we eat at it, work on it, lay things on it. But to a person living in a culture where no tables are used, it may be a very big stool, a small platform, or a meaningless structure. If our culture and upbringing were different, that is to say, our world would not even look the same to us.

Many of us, for example, cannot distinguish between pickerel, pike, salmon, smelts, perch, croppies, halibut, and mackerel; we say that they are "just fish, and I don't like fish." To a seafood connoisseur, however, these distinctions are real, since they mean the difference to him between one kind of good meal, a very different kind of good meal, or a poor meal. To a zoologist, even finer distinctions become of great importance, since he has other and more general ends in view. When we hear the statement, then, "This fish is a specimen of the small porgy, *Lagodon rhomboides*," we accept this as being "true," even if we don't care, not because that is its "right name," but because that is how it is *classified* in the most complete and most general system of classification which people most deeply interested in fish have evolved.

When we name something, then, we are classifying. *The individual object or event we are naming, of course, has no name and belongs to no class until we put it in one.* To illustrate again, suppose that we were to give the extensional meaning of the word "Korean." We would have to point to all "Koreans" living at a particular moment and say, "The word 'Korean' denotes at the present moment these persons: A_1, A_2, A_3, . . . A_n." Now, let us say, a child, whom we shall designate as Z, is born among these "Koreans." *The extensional meaning of the word "Korean," determined prior to the existence of Z, does not include Z.* Z is a new individual belonging to no classification, since all classifications were made without taking Z into account. Why, then, is Z also a "Korean"? *Because we say so.* And, saying so—fixing the classification—we have determined to a considerable extent future attitudes toward Z. For example, Z will always have certain rights in Korea; he will always be regarded in other nations as an "alien" and will be subject to laws applicable to "aliens"; he will never be permitted to enter the U. S. except under very limited conditions.

In matters of "race" and "nationality," the way in which classifications work is especially apparent. For example, the present writer is by "race" a "Japanese," by "nationality" a "Canadian," but, his friends say, "essentially" an "American," since he thinks, talks, behaves, and dresses much like other Americans. Because he is "Japanese," he is excluded by law from becoming a citizen of the United States; because he is "Canadian," he has certain rights in all parts of the British Empire; because he is "American," he gets along with his friends and teaches in an American institution of higher learning without any noticeable special difficulties. Are these classifications "real"? Of course they are, and *the effect that each of them has* upon what he may do and what he may not do constitutes their "reality."

There was, again, the story some years ago of the immigrant baby whose parents were "Czechs" and eligible to enter the United States by quota. The child, however, because it was born on what happened to be a "British" ship, was a "British subject." The quota for Britishers was full for that year, with the result that the newborn infant was regarded by immigration authorities as "not admissible to the United States." How they straightened out this matter, the writer does not know. The reader can multiply

instances of this kind at will. When, to take another example, is a person a "Negro"? By the definition accepted in the United States, any person with even a small amount of "Negro blood"—that is, whose parents or ancestors were classified as "Negroes"—is a "Negro." *Logically, it would be exactly as justifiable to say that any person with even a small amount of "white blood" is "white."* Why do they say one rather than the other? Because the former system of classification *suits the convenience of those making the classification.*

There are few complexities about classifications at the level of dogs and cats, knives and forks, cigarettes and candy, but when it comes to classifications at high levels of abstraction, for example, those describing conduct, social institutions, philosophical and moral problems, serious difficulties occur. When one person kills another, is it an act of murder, an act of temporary insanity, an act of homicide, an accident, or an act of heroism? As soon as the process of classification is completed, our attitudes and our conduct are to a considerable degree determined. We hang the murderer, we lock up the insane man, we free the victim of circumstances, we pin a medal on the hero.

The Blocked Mind

Unfortunately, people are not always aware of the way in which they arrive at their classifications. Unaware of the characteristics of the extensional Mr. Miller not covered by classifying him as "a Jew" and attributing to Mr. Miller all the characteristics *suggested* by the affective connotations of the term with which he has been classified, they pass final judgment on Mr. Miller by saying, "Well, a Jew's a Jew. There's no getting around that!"

We need not concern ourselves here with the injustices done to "Jews," "Roman Catholics," "Republicans," "WPA workers," "New Deal proposals," and so on, by such hasty judgments or, as it is better to call them, signal reactions. "Hasty judgments" suggests that such errors can be avoided by thinking more slowly; this, of course, is not the case, for some people think very slowly with no better results. What we are concerned with is the way in which we block the development of our own minds by such signal reactions.

To continue with our example of the people who say, "A Jew's a Jew. There's no getting around that!"—they are, as we have seen, confusing the denoted, extensional Jew with the fictitious "Jew" inside their heads. Such persons, the reader will have observed, can usually be made to admit, on being reminded of certain "Jews" whom they admire—perhaps Albert Einstein, perhaps Hank Greenberg, perhaps Jascha Heifetz, perhaps Benny Goodman—that "there are exceptions, of course." They have been compelled by experience, that is to say, to take cognizance of at least a few of the multitude of "Jews" who do not fit their preconceptions. At this point, however, they continue triumphantly, "But exceptions only prove the rule!"[2]—which is another way of saying, "Facts don't count." In extremely serious cases of people who "think" in this way, it can sometimes be observed that the best friends they have may be Isaac Cohens, Isidor Ginsbergs, and Abe Sinaikos; nevertheless, in explaining this, they will say, "I don't think of them as Jews at all. They're just friends." In other words, the fictitious "Jew" inside their heads remains unchanged *in spite of their experience.*

People like this *cannot learn from experience.* They continue to vote "Republican" or "Democratic," no matter

[2] This extraordinarily fatuous saying originally meant, "The exception *tests* the rule"—"*Exceptio probat regulam.*" This older meaning of the word "prove" survives in such an expression as "automobile proving ground," for testing automobiles.

what the Republicans or Democrats do. They continue to object to "socialists," no matter what the socialists propose. They continue to regard "mothers" as sacred, no matter which mother. A woman who has been given up both by physicians and psychiatrists as hopelessly insane was being considered by a committee whose task it was to decide whether or not she should be committed to an asylum. One member of the committee doggedly refused to vote for commitment. "Gentlemen," he said in tones of deepest reverence, "you must remember that this woman is, after all, a mother." Similarly such people continue to hate "Protestants," no matter which Protestant. Unaware of characteristics left out in the process of classification, they overlook, when the term "Republican" is applied to both the party of Abraham Lincoln and the party of Warren Harding, the rather important differences between them: "If the Republican party was good enough for Abe Lincoln, it's good enough for me!"

Cow_1 Is Not Cow_2

How do we prevent ourselves from getting into such intellectual blind alleys, or, finding we are in one, how do we get out again? One way is to remember that practically all statements in ordinary conversation, debate, and public controversy taking the form, "Jews are Jews," "Republicans are Republicans," "Business is business," "Boys will be boys," "Woman drivers are woman drivers," and so on, are *not true*. Let us put one of these back into a context in life.

"I don't think we should go through with this deal, Bill. Is it altogether fair to the railroad company?"

"Aw, forget it! *Business is business*, after all."

Such an assertion, although it looks like a "simple statement of fact," is not simple and is not a statement of fact. The first "business" *denotes* the transaction under discussion; the second "business" invokes the *connotations* of the word. The sentence says, therefore, "Let us treat this transaction with complete disregard for considerations of honor, sentiment, or justice, as the word 'business' suggests." Similarly, when a father tries to excuse the mischief done by his sons, he says, "Boys will be boys"; in other words, "Let us regard the actions of my sons with that indulgent amusement customarily extended toward those whom we call 'boys,'" though the angry neighbor will say, of course, "Boys, my eye! They're little hoodlums; that's what they are!" These are not informative statements but *directives, directing us to classify the object or event under discussion in given ways, in order that we may feel or act in the ways suggested by the terms of the classification.*

There is a simple technique for preventing such directives from having their harmful effect on our thinking. It is the suggestion made by Korzybski that we add "index numbers" to our terms, thus: Englishman_1, Englishman_2 . . .; cow_1, cow_2, cow_3 . . .; Frenchman_1, Frenchman_2, Frenchman_3, . . .; communist_1, communist_2, communist_3 . . . The terms of the classification tell us what the individuals in that class have in common; The Index Numbers Remind Us of the Characteristics Left Out. *A rule can then be formulated as a general guide in all our thinking and reading: Cow_1* is not *cow_2; Jew_1* is not *Jew_2; politician_1* is not *politician_2, and so on. This rule, if remembered, prevents us from confusing levels of abstraction and forces us to consider the facts on those occasions when we might otherwise find ourselves leaping to conclusions which we may later have cause to regret.*

3.

VERBAL STEREOTYPES AND RACIAL PREJUDICE

By Daniel Katz and Kenneth W. Braly

One outstanding result of investigations of racial prejudice is the uniformity in the patterns of discrimination against various races* shown by Americans throughout the United States. People in widely separated parts of the country show a high degree of agreement in their expressions of relative liking or disliking of different "foreign" groups.

In an early study Bogardus asked 110 businessmen and schoolteachers about the degrees of social intimacy to which they were willing to admit certain ethnic groups. The degrees of social distance employed were: to close kinship through marriage, to my club as personal chums, to my street as neighbors, to employment in my occupation, to citizenship in my country, to my country as visitors only, and exclusion from my country. By weighting these seven classifications Bogardus obtained the following preferential rating of 23 ethnic groups:

Canadians	22.51
English	22.35
Scotch	20.91
Irish	19.38
French	18.67
Swedes	16.20
Germans	14.95
Spanish	14.02
Italians	8.87
Indians	7.30
Poles	6.65
Russians	6.40
Armenians	6.16
German-Jews	5.45
Greeks	5.23
Russian-Jews	4.94
Mexicans	4.57
Chinese	4.12
Japanese	4.08
Negroes	3.84
Mulattoes	3.62
Hindus	3.08
Turks	2.91

The Bogardus study was carried out on the Pacific Coast but studies made in other parts of the United States indicate the same pattern of preferences for the various groups. In the Middle West, for example, Thurstone constructed a scale on the basis of the likes and dislikes of 239 students. The resulting rank order and scale values for 21 ethnic groups follow:

American	0.00
English	−1.34
Scotch	−2.09
Irish	−2.18
French	−2.46
German	−2.55
Swede	−2.90
South American	−3.64
Italian	−3.66
Spanish	−3.79
Jew	−3.92
Russian	−4.10
Pole	−4.41
Greek	−4.62
Armenian	−4.68
Japanese	−4.93
Mexican	−5.10
Chinese	−5.30
Hindu	−5.35
Turk	−5.82
Negro	−5.86

How is the agreement about "foreign" groups to be interpreted? The first possibility is that the foreign groups possess

Adapted by the authors from "Racial Stereotypes of 100 College Students," *Journal of Abnormal and Social Psychology*, 1933, XXVIII, 280–290, and "Racial Prejudice and Racial Stereotypes," *ibid.*, 1935, XXX, 175–193, with permission of the American Psychological Association, Inc.

* The term *race* is here used in the popular, not the scientific, sense, and covers reference to racial, religious, and national groupings.

varying degrees of undesirable qualities upon which most Americans base their preferential ratings. But it is obvious that there are wide individual differences within any nationality group—that is, not all Englishmen are alike, nor are all Frenchmen, nor are all Russians. It is also obvious that few Americans have had much opportunity to know a large number of people from the many nationalities they dislike. It is also highly probable that if we were basing our judgments wholly upon what we know from actual contact with individual Spaniards, we would have differing impressions of what Spaniards are really like, because we would not all have met the same type of Spaniard. Hence a more valid interpretation of the agreement of Americans about foreign groups is that it represents the prejudgments or prejudices, absorbed from the stereotypes of our culture.

Thus the preferential disliking reported by Bogardus and Thurstone may reflect attitudes toward race names and may not arise from animosity toward the specific qualities inherent in the real human beings bearing a given racial label. We have learned responses of varying degrees of aversion or acceptance to racial names and where these tags can be readily applied to individuals, as they can in the case of the Negro because of his skin color, we respond to him not as a human being but as a personification of the symbol we have learned to look down upon. Walter Lippmann has called this type of belief a stereotype—by which is meant a fixed impression which conforms very little to the facts· it pretends to represent and results from our defining first and observing second.

The Present Study †

To explore the nature of racial and national stereotypes more fully, the following procedures were employed:

(1) Twenty-five students were asked to list as many specific characteristics or traits as were thought typical of the following ten groups: Germans, Italians, Irish, English, Negroes, Jews, Americans, Chinese, Japanese, Turks. No traits were suggested to the students. This list was then supplemented by characteristics commonly reported in the literature. The result was a final check-list of 84 descriptive adjectives.

(2) One hundred Princeton undergraduates were then asked to select the traits from this prepared list of 84 adjectives to characterize the ten racial and national groups. Specific directions used in the experiment follow in part:

> Read through the list of words on page one and select those which seem to you to be typical of the Germans. Write as many of these words in the following spaces as you think are necessary to characterize these people adequately. If you do not find proper words on page one for all the typical German characteristics, you may add those which you think necessary for an adequate description.

This procedure was then repeated for other national and racial groups. When the student had finished this he was asked to go back over the ten lists of words which he had chosen and to mark the five words of each list which seemed most typical of the group in question.

(3) Another group of students was asked to rate the list of adjectives on the basis of the desirability of these traits in friends and associates. The students making this judgment had no knowledge that the characteristics were supposed to describe racial groups. The traits or adjectives were rated from 1 to 10 on the basis of their desirability.

(4) Still another group of students was asked to put in rank order the ten racial and national groups on the basis of preference for association with their

† This study was made in 1932.

members. The group which the subject most preferred to associate with was placed first and the group with which he preferred to associate least was placed tenth or last.

Results

Stereotyped Conceptions of Ten Ethnic Groups. Table 1 presents the twelve characteristics most frequently assigned to the ten races by the 100 students. This table summarizes the traits which students rechecked as the five most typical characteristics of each race.

The traits most frequently assigned to the Germans seem consistent with the popular stereotype to be found in newspapers and magazines. Their science, industry, ponderous and methodical manner, and intelligence were pointed out by over one fourth of the students. Scientifically-minded was the most frequently assigned characteristic, as many as 78 percent of the group ascribing this trait to the Germans.

Italians received the common characterization of the hot-blooded Latin peoples: artistic, impulsive, quick-tempered, passionate, musical, and imaginative. The greatest agreement was shown on the artistic qualities of the Italians with 53 percent of the students concurring in this belief.

The characteristics ascribed to the Negroes are somewhat similar to the picture of the Negro as furnished by the *Saturday Evening Post:* highly superstitious, lazy, happy-go-lucky, ignorant, musical, and ostentatious. The greatest degree of agreement for a single trait for any racial group was reached when 84 percent of the students voted the Negroes superstitious. Laziness was given as a typical characteristic by three fourths of the students, but the other traits mentioned above had much lower frequencies of endorsement. It may be noted in passing that for a northern college, Princeton draws heavily upon the South for her enrollment so that this characterization of Negroes is not exclusively a Northern description.

In the case of the Irish no single trait of the 84 presented could be agreed upon as a typical Irish characteristic by half the students. Forty-five percent, however, thought pugnacity typical and 39 percent agreed upon quick-tempered. Witty, honest, very religious, industrious, and extremely nationalistic were the other adjectives selected by a fifth or more of the students.

The characterization of the English savors more of the English "gentleman" than of the general stereotype of John Bull. The leading characteristic is sportsmanship with an endorsement from 53 percent of the students. Forty-six percent of the students favored intelligence as typical of the English, 34 percent conventionality, 31 percent love of traditions, and 30 percent conservatism. Other adjectives were reserved, sophisticated, courteous, and honest.

The qualities of the competitive business world are used to describe the Jews. They are pictured as shrewd, mercenary, industrious, grasping, ambitious, and sly. Fifteen percent of the students did include Jewish loyalty to family ties. The greatest agreement (79 percent) was shown for shrewdness.

The traits ascribed to Americans show a certain objectivity on the part of the students in describing themselves, for the description given is not greatly at variance with the stereotype held by non-Americans. Americans are described as industrious, intelligent, materialistic, ambitious, progressive, and pleasure-loving. As in the case of the Irish the degree of agreement on these traits is relatively low. Almost one half did assign industry and intelligence to Americans, and a third gave materialistic and ambitious as the most descriptive adjectives.

Apparently the general stereotype for the Chinese among eastern college students is fairly indefinite, for the agreement on typical Chinese characteristics

TABLE 1

THE TWELVE TRAITS MOST FREQUENTLY ASSIGNED TO EACH OF VARIOUS RACIAL AND NATIONAL GROUPS BY 100 PRINCETON STUDENTS

Traits checked rank order	No	Percent	Traits checked rank order	No	Percent
GERMANS			NEGROES		
Scientifically minded	78	78	Superstitious	84	84
Industrious	65	65	Lazy	75	75
Stolid	44	44	Happy go lucky	38	38
Intelligent	32	32	Ignorant	38	38
Methodical	31	31	Musical	26	26
Extremely nationalistic	24	24	Ostentatious	26	26
Progressive	16	16	Very religious	24	24
Efficient	16	16	Stupid	22	22
Jovial	15	15	Physically dirty	17	17
Musical	13	13	Naive	14	14
Persistent	11	11	Slovenly	13	13
Practical	11	11	Unreliable	12	12
ITALIANS			IRISH		
Artistic	53	53	Pugnacious	45	45
Impulsive	44	44	Quick tempered	39	39
Passionate	37	37	Witty	38	38
Quick tempered	35	35	Honest	32	32
Musical	32	32	Very religious	29	29
Imaginative	30	30	Industrious	21	21
Very religious	21	21	Extremely nationalistic	21	21
Talkative	21	21	Superstitious	18	18
Revengeful	17	17	Quarrelsome	14	14
Physically dirty	13	13	Imaginative	13	13
Lazy	12	12	Aggressive	13	13
Unreliable	11	11	Stubborn	13	13
ENGLISH			CHINESE		
Sportsmanlike	53	53	Superstitious	34	35
Intelligent	46	46	Sly	29	30
Conventional	34	34	Conservative	29	30
Tradition loving	31	31	Tradition loving	26	27
Conservative	30	30	Loyal to family ties	22	23
Reserved	29	29	Industrious	18	19
Sophisticated	27	27	Meditative	18	19
Courteous	21	21	Reserved	17	17
Honest	20	20	Very religious	15	15
Industrious	18	18	Ignorant	15	15
Extremely nationalistic	18	18	Deceitful	14	14
Humorless	17	17	Quiet	13	13
JEWS			JAPANESE		
Shrewd	79	79	Intelligent	45	48
Mercenary	49	49	Industrious	43	46
Industrious	48	48	Progressive	24	25
Grasping	34	34	Shrewd	22	23
Intelligent	29	29	Sly	20	21
Ambitious	21	21	Quiet	19	20
Sly	20	20	Imitative	17	18
Loyal to family ties	15	15	Alert	16	17
Persistent	13	13	Suave	16	17
Talkative	13	13	Neat	16	17
Aggressive	12	12	Treacherous	13	14
Very religious	12	12	Aggressive	13	14
AMERICANS			TURKS		
Industrious	48	48	Cruel	47	54
Intelligent	47	47	Very religious	26	30
Materialistic	33	33	Treacherous	21	24
Ambitious	33	33	Sensual	20	23
Progressive	27	27	Ignorant	15	17
Pleasure loving	26	26	Physically dirty	15	17
Alert	23	23	Deceitful	13	15
Efficient	21	21	Sly	12	14
Aggressive	20	20	Quarrelsome	12	14
Straightforward	19	19	Revengeful	12	14
Practical	19	19	Conservative	12	14
Sportsmanlike	19	19	Superstitious	11	13

TABLE 2

AVERAGE RANK ORDER OF TEN RACIAL GROUPS: PREFERENTIAL RANKING

Nationality	Average rank order
Americans	1.15
English	2.27
Germans	3.42
Irish	3.87
Italians	5.64
Japanese	5.78
Jews	7.10
Chinese	7.94
Turks	8.52
Negroes	9.35

TABLE 3

THE RANKING OF TEN RACES ON THE BASIS OF THE RATING OF THEIR ALLEGED TYPICAL TRAITS BY 65 STUDENTS

Nationality	Average value of assigned traits
Americans	6.77
English	6.26
Germans	6.02
Japanese	5.89
Irish	5.42
Jews	4.96
Chinese	4.52
Italians	4.40
Negroes	3.55
Turks	3.05

is not great. Three of the 100 students could give no characteristics for the Chinese. Of the 97 who did respond 35 percent thought the Chinese superstitious, 30 percent thought them sly, 30 percent regarded them as conservative. The next most frequently ascribed traits were love of tradition, loyalty to family ties, industry, and meditation.

The picture of the Japanese seems more clear-cut with some recognition of the westernization of Japan. Emphasis was placed upon intelligence, industry, progressiveness, shrewdness, slyness, and quietness. The Japanese are the only group in which intelligence leads the list as the most frequently assigned characteristic. Forty-eight percent of the students filling in this part of the questionnaire gave intelligence as a typical Japanese trait.

Thirteen students could select no characteristics for the Turks. Fifty-four percent of those responding gave cruelty. Other traits selected described the Turks as very religious, treacherous, sensual, ignorant, physically dirty, deceitful, and sly.

Preferential Ranking of the Ten Groups. The adjectives used to describe the ten groups are a rough index of the esteem in which they are held. More precise measures were furnished (1) by the direct ranking of the ten racial and national names in order of preference (Table 2), and (2) by the desirability of the typical traits attributed to the ten groups (Table 3).

The scores in Table 3 are the average total value of the traits assigned to the various races, computed as follows: For every race the average rating of a trait was multiplied by the number of times it was assigned to that race. The ratings of all the traits assigned to one race were added and divided by the total number of assignments of traits to that race. This division would have been unnecessary if all the 100 students in the original group assigning traits had assigned five traits to every race. In some cases, however, a student made less than five assignments.

When we compare the ranking of the ten groups on the basis of preference for association with their members with their standing based on the desirability of traits attributed to them, we find a few changes in relative placement. The Italians drop from fifth to eighth place; the Irish drop two places, while the Japanese move up two places; and the Jews, Chinese, and Negroes move up one

place. In other words, the Italians are regarded more highly and the Japanese are held in lower esteem than the qualities imputed to them would justify.

It also is true that the ethnic groups are bunched much more closely together on the scores based on assigned traits than on the preference ranking. The preference ranking accorded to Americans is five times as desirable as that accorded to the Japanese, but the difference in rating Americans and Japanese on the basis of imputed characteristics is nowhere nearly as great. In part this is an artifact of our method, but in part it is due to the fact that prejudice exceeds the rationalization of undesirable racial characteristics. Nonetheless there is marked similarity between the relative ranking on the basis of preference for group names and the average scores representing an evaluation of typical traits.

Thus racial prejudice is part of a general set of stereotypes of a high degree of consistency and is more than a single specific reaction to a race name. The student is prejudiced against the label Negro because to him it means a superstitious, ignorant, shiftless person of low social status. The whole attitude is more than a simple conditioned response to the race name: it is a pattern of rationalizations organized around the racial label.

This does not mean that the rationalized complex is justified by objective reality—that is, that Negroes really are the type of people described by the stereotype. In fact the clearness or vagueness of the stereotyped conception bear little relation to the degree of prejudice expressed against a group as determined by its preferential ranking.

Relative Clearness and Consistency of Pattern of Stereotypes. Table 4 shows the clearness of the stereotypes about the ten groups in terms of the degree of agreement in assigning typical characteristics to them.

Table 4 lists the least number of traits which have to be included to find 50 per-

TABLE 4

THE LEAST NUMBER OF TRAITS WHICH MUST BE TAKEN TO INCLUDE 50 PERCENT OF THE POSSIBLE ASSIGNMENTS FOR EACH RACE

Races, rank order	Number of traits required
Negroes	4.6
Germans	5.0
Jews	5.5
Italians	6.9
English	7.0
Irish	8.5
Americans	8.8
Japanese	10.9
Chinese	12.0
Turks	15.9

cent of the 500 possible votes cast by the 100 students in the case of every racial and national group. It will be remembered that each student was allowed to select 5 of the 84 traits presented and that there were 100 students. If there were perfect agreement, 2.5 traits would have received 50 percent of the votes. Perfect disagreement or chance would mean that 42 traits would be necessary to give half of the votes. Table 4 shows that in the case of Negroes we can find 50 percent of the votes or selections of traits in 4.6 traits. The agreement here is very high and even in the case of the Turks where 15.9 traits must be included to give 50 percent of the possible 500 assignments or selections the voting is far from a chance selection.

Thus in Table 4 we have a comparison of the definiteness of the ten racial stereotypes. The most definite picture is that of the Negroes. The Germans and the Jews also give consistent patterns of response, while the Chinese, Japanese, and Turks furnish the least clear cut stereotypes.

Though the belief in the undesirable qualities of a national group bolsters the prejudice against the group, it is not

necessary to have a well worked out set of such rationalizations to obtain expressions of extreme prejudice. In fact Table 4 shows little relation between degree of disliking and the definiteness of the stereotyped picture. Negroes and Turks both are held in the lowest esteem, yet they represent opposite extremes in sharpness of stereotype. Students agreed among themselves most closely in characterizing Negroes and disagreed most in characterizing Turks. But they were in agreement in putting both groups at the bottom of the list as least desirable as companions or friends.

SUMMARY

1. Ten ethnic groups were placed in rank order by Princeton students on the basis of preference for association with their members. The preferential ranking was similar in its main outline to the results reported by investigators in all parts of the United States. Minor exceptions occurred in the case of the Jews and Japanese, who were placed somewhat lower and higher, respectively, than in other studies.

2. Students not only agreed in their preferential ranking of ethnic groups, but they also agreed in the types of characteristics attributed to these groups. In fact the conception of "foreign" groups is so stereotyped that it cannot be based upon actual contact with or direct knowledge of the groups in question.

3. The clearness or definiteness of the stereotyped picture is not related to the degree of prejudice. The greatest prejudice is expressed against Negroes and Turks. The stereotyped picture of the Negro is very clear-cut while that of the Turk is the vaguest of any of the ten groups included in the study.

4. A list of 84 traits given as the typical characteristics of the ten nationalities by a group of students was rated by another group of students on the basis of their desirability in associates. From these ratings scores were assigned to the ten nationalities, the relative weight of which agreed closely with the preferential ranking. Racial prejudice is thus a generalized set of stereotypes of a high degree of consistency which includes emotional responses to race names, a belief in typical characteristics associated with race names, and an evaluation of such typical traits.

4.

SCIENCE AND LINGUISTICS

By Benjamin Lee Whorf

Every normal person in the world, past infancy in years, can and does talk. By virtue of that fact, every person—civilized or uncivilized—carries through life certain naïve but deeply rooted ideas about talking and its relation to thinking. Because of their firm connection with speech habits that have become unconscious and automatic, these notions tend to be rather intolerant of opposition. They are by no means entirely personal and haphazard; their basis is definitely systematic, so that we are justified in calling them a system of natural logic—a term that seems to me preferable to the term common sense, often used for the same thing.

According to natural logic, the fact that every person has talked fluently since infancy makes every man his own authority on the process by which he formulates and communicates. He has

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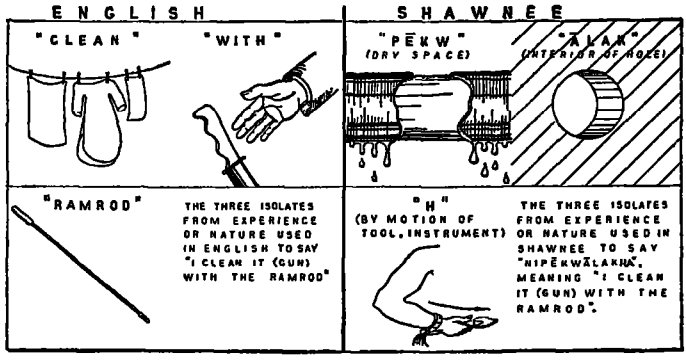


FIG. 1. Languages dissect nature differently. The different isolates of meaning (thoughts) used by English and Shawnee in reporting the same experience, that of cleaning a gun by running the ramrod through it. The pronouns "I" and "it" are not shown by symbols, as they have the same meaning in each case. In Shawnee "ni-" equals "I"; "-a" equals "it."

merely to consult a common substratum of logic or reason which he and everyone else are supposed to possess. Natural logic says that talking is merely an incidental process concerned strictly with communication, not with formulation of ideas. Talking, or the use of language, is supposed only to "express" what is essentially already formulated nonlinguistically. Formulation is an independent process, called thought or thinking, and is supposed to be largely indifferent to the nature of particular languages. Languages have grammars, which are assumed to be merely norms of conventional and social correctness, but the use of language is supposed to be guided not so much by them as by correct, rational, or intelligent *thinking*.

Thought, in this view, does not depend on grammar but on laws of logic or reason which are supposed to be the same for all observers of the universe—to represent a rationale in the universe that can be "found" independently by all intelligent observers, whether they speak Chinese or Choctaw. In our own culture, the formulations of mathematics and of formal logic have acquired the reputation of dealing with this order of things, i.e., with the realm and laws of pure thought. Natural logic holds that different languages are essentially parallel methods for expressing this one-and-the-same rationale of thought and, hence, differ really in but minor ways which may seem important only because they are seen at close range. It holds that mathematics, symbolic logic, philosophy, and so on, are systems contrasted with language which deal directly with this realm of thought, not that they are themselves specialized extensions of language. The attitude of natural logic is well shown in an old quip about a German grammarian who devoted his whole life to the study of the dative case. From the point of view of natural logic, the dative case and grammar in general are an extremely minor issue. A different attitude is said to have been held by the ancient Arabians: Two princes, so the story goes, quarreled over the honor of putting on the shoes of the most learned grammarian of the realm; whereupon their father, the caliph, is said to have remarked that it was the glory of his kingdom that great grammarians were honored even above kings.

The familiar saying that the exception proves the rule contains a good deal of wisdom, though from the standpoint of formal logic it became an absurdity as soon as "prove" no longer meant "put

on trial." The old saw began to be profound psychology from the time it ceased to have standing in logic. What it might well suggest to us today is that if a rule has absolutely no exceptions, it is not recognized as a rule or as anything else; it is then part of the background of experience of which we tend to remain unconscious. Never having experienced anything in contrast to it, we cannot isolate it and formulate it as a rule until we so enlarge our experience and expand our base of reference that we encounter an interruption of its regularity. The situation is somewhat analogous to that of not missing the water till the well runs dry, or not realizing that we need air till we are choking.

For instance, if a race of people had the physiological defect of being able to see only the color blue, they would hardly be able to formulate the rule that they saw only blue. The term blue would convey no meaning to them, their language would lack color terms, and their words denoting their various sensations of blue would answer to, and translate, our words light, dark, white, black, and so on, not our word blue. In order to formulate the rule or norm of seeing only blue, they would need exceptional moments in which they saw other colors. The phenomenon of gravitation forms a rule without exceptions; needless to say, the untutored person is utterly unaware of any law of gravitation, for it would never enter his head to conceive of a universe in which bodies behaved otherwise than they do at the earth's surface. Like the color blue with our hypothetical race, the law of gravitation is a part of the untutored individual's background, not something he isolates from that background. The law could not be formulated until bodies that always fell were seen in terms of a wider astronomical world in which bodies moved in orbits or went this way and that.

Similarly, whenever we turn our heads, the image of the scene passes across our retinas exactly as it would if the scene turned around us. But this effect is background, and we do not recognize it; we do not see a room turn around us but are conscious only of having turned our heads in a stationary room. If we observe critically while turning the head or eyes quickly, we shall see no motion, it is true, yet a blurring of the scene between two clear views. Normally we are quite unconscious of this continual blurring but seem to be looking about in an unblurred world. Whenever we walk past a tree or house, its image on the retina changes just as if the tree or house were turning on an axis; yet we do not see trees or houses turn as we travel about at ordinary speeds. Sometimes ill-fitting glasses will reveal queer movements in the scene as we look about, but normally we do not see the relative motion of the environment when we move; our psychic make-up is somehow adjusted to disregard whole realms of phenomena that are so all-pervasive as to be irrelevant to our daily lives and needs.

Natural logic contains two fallacies: First, it does not see that the phenomena of a language are to its own speakers largely of a background character and so are outside the critical consciousness and control of the speaker who is expounding natural logic. Hence, when anyone, as a natural logician, is talking about reason, logic, and the laws of correct thinking, he is apt to be simply marching in step with purely grammatical facts that have somewhat of a background character in his own language or family of languages but are by no means universal in all languages and in no sense a common substratum of reason. Second, natural logic confuses agreement about subject matter, attained through use of language, with knowledge of the linguistic process by which agreement is attained; i.e., with the province of the despised (and to its notion superfluous) grammarian. Two fluent speakers, of English let us say, quickly reach a point of assent about the

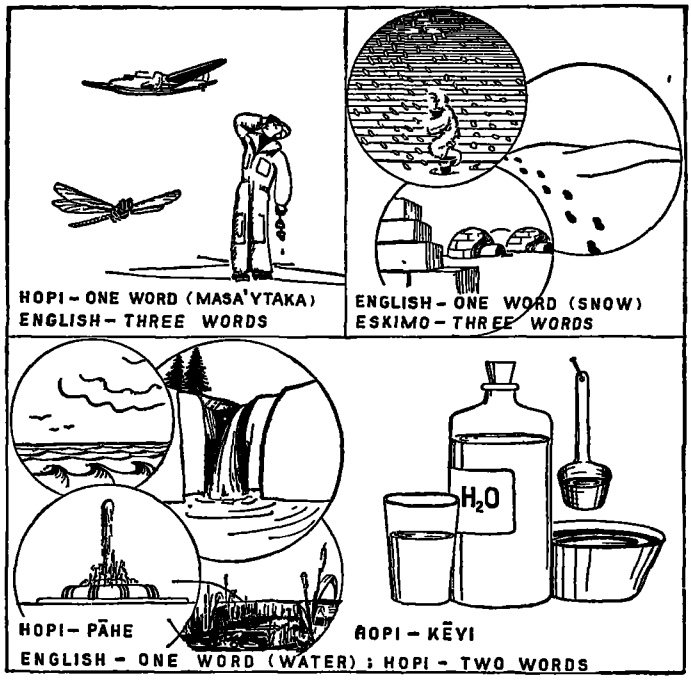


FIG. 2. Languages classify items of experience differently The class corresponding to one word and one thought in language A may be regarded by language B as two or more classes corresponding to two or more words and thoughts

subject matter of their speech, they agree about what their language refers to. One of them, A, can give directions that will be carried out by the other, B, to A's complete satisfaction. Because they thus understand each other so perfectly, A and B, as natural logicians, suppose they must of course know how it is all done. They think, e g , that it is simply a matter of choosing words to express thoughts. If you ask A to explain how he got B's agreement so readily, he will simply repeat to you, with more or less elaboration or abbreviation, what he said to B. He has no notion of the process involved. The amazingly complex system of linguistic patterns and classifications which A and B must have in common before they can adjust to each other at all, is all background to A and B.

These background phenomena are the province of the grammarian—or of the linguist, to give him his more modern name as a scientist. The word linguist in common, and especially newspaper, parlance means something entirely different, namely, a person who can quickly attain agreement about subject matter with different people speaking a number of different languages Such a person is better termed a polyglot or a multilingual. Scientific linguists have long understood that ability to speak a language fluently does not necessarily confer a linguistic knowledge of it—i.e., understanding of its background phenomena and its systematic processes and structure—any more than ability to play a good game of billiards confers or requires any knowledge of the laws of mechanics that operate upon the billiard table.

The situation here is not unlike that in any other field of science. All real scientists have their eyes primarily on back-

ground phenomena that cut very little ice, as such, in our daily lives; and yet their studies have a way of bringing out a close relation between these unsuspected realms of fact and such decidedly foreground activities as transporting goods, preparing food, treating the sick, or growing potatoes, which in time may become very much modified simply because of pure scientific investigation in no way concerned with these brute matters themselves. Linguistics is in quite similar case; the background phenomena with which it deals are involved in all our foreground activities of talking and of reaching agreement, in all reasoning and arguing of cases, in all law, arbitration, conciliation, contracts, treaties, public opinion, weighing of scientific theories, formulation of scientific results. Whenever agreement or assent is arrived at in human affairs, and whether or not mathematics or other specialized symbolisms are made part of the procedure, *this agreement is reached by linguistic processes, or else it is not reached.*

As we have seen, an overt knowledge of the linguistic processes by which agreement is attained is not necessary to reaching some sort of agreement, but it is certainly no bar thereto; the more complicated and difficult the matter, the more such knowledge is a distinct aid, till the point may be reached—I suspect the modern world has about arrived at it—when the knowledge becomes not only an aid but a necessity. The situation may be likened to that of navigation. Every boat that sails is in the lap of planetary forces; yet a boy can pilot his small craft around a harbor without benefit of geography, astronomy, mathematics, or international politics. To the captain of an ocean liner, however, some knowledge of all these subjects is essential.

When linguists became able to examine critically and scientifically a large number of languages of widely different patterns, their base of reference was expanded; they experienced an interruption of phenomena hitherto held universal, and a whole new order of significances came into their ken. It was found that the background linguistic system (in other words, the grammar) of each language is not merely a reproducing instrument for voicing ideas but rather is itself the shaper of ideas, the program and guide for the individual's mental activity, for his analysis of impressions, for his synthesis of his mental stock in trade. Formulation of ideas is not an independent process, strictly rational in the old sense, but is part of a particular grammar and differs, from slightly to greatly, as between different grammars We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems in our minds. We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way—an agreement that holds throughout our speech community and is codified in the patterns of our language. The agreement is, of course, an implicit and unstated one, *but its terms are absolutely obligatory;* we cannot talk at all except by subscribing to the organization and classification of data which the agreement decrees.

The fact is very significant for modern science, for it means that no individual is free to describe nature with absolute impartiality but is constrained to certain modes of interpretation even while he thinks himself most free. The person most nearly free in such respects would be a linguist familiar with very many widely different linguistic systems. As yet even no linguist is in any such position. We are thus introduced to a new

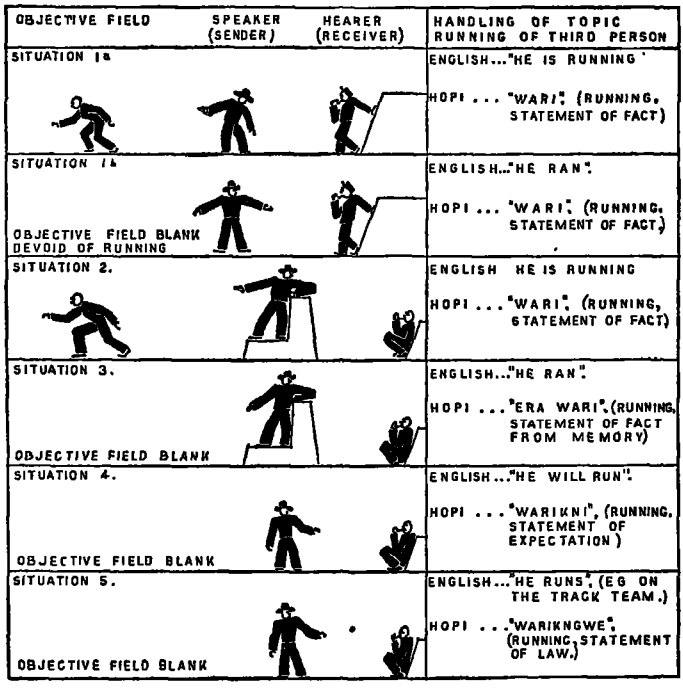


FIG. 3. Contrast between a "temporal" language (English) and a "timeless" language (Hopi). What are to English differences of time are to Hopi differences in the kind of validity.

principle of relativity, which holds that all observers are not led by the same physical evidence to the same picture of the universe, unless their linguistic backgrounds are similar, or can in some way be calibrated.

This rather startling conclusion is not so apparent if we compare only our modern European languages, with perhaps Latin and Greek thrown in for good measure. Among these tongues there is a unanimity of major pattern which at first seems to bear out natural logic. But this unanimity exists only because these tongues are all Indo-European dialects cut to the same basic plan, being historically transmitted from what was long ago one speech community; because the modern dialects have long shared in building up a common culture; and because much of this culture, on the more intellectual side, is derived from the linguistic backgrounds of Latin and Greek. Thus this group of languages satisfies the special case of the clause beginning "unless" in the statement of the linguistic relativity principle at the end of the preceding paragraph. From this condition follows the unanimity of description of the world in the community of modern scientists. But it must be emphasized that "all modern Indo-European-speaking observers" is not the same thing as "all observers." That modern Chinese or Turkish scientists describe the world in the same terms as Western scientists means, of course, only that they have taken over bodily the entire Western system of rationalizations, not that they have corroborated that system from their native posts of observation.

When Semitic, Chinese, Tibetan, or African languages are contrasted with our own, the divergence in analysis of the world becomes more apparent; and when we bring in the native languages of

the Americas, where speech communities for many millenniums have gone their ways independently of each other and of the Old World, the fact that languages dissect nature in many different ways becomes patent. The relativity of all conceptual systems, ours included, and their dependence upon language stand revealed. That American Indians speaking only their native tongues are never called upon to act as scientific observers is in no wise to the point. To exclude the evidence which their languages offer as to what the human mind can do is like expecting botanists to study nothing but food plants and hothouse roses and then tell us what the plant world is like!

Let us consider a few examples. In English we divide most of our words into two classes, which have different grammatical and logical properties. Class 1 we call nouns, e.g., "house," "man"; Class 2, verbs, e.g., "hit," "run." Many words of one class can act secondarily as of the other class, e.g., "a hit," "a run," or "to man" the boat, but on the primary level the division between the classes is absolute. Our language thus gives us a bipolar division of nature. But nature herself is not thus polarized. If it be said that strike, turn, run, are verbs because they denote temporary or short-lasting events, i.e., actions, why then is fist a noun? It also is a temporary event. Why are lightning, spark, wave, eddy, pulsation, flame, storm, phase, cycle, spasm, noise, emotion, nouns? They are temporary events. If man and house are nouns because they are long-lasting and stable events, i.e., things, what then are keep, adhere, extend, project, continue, persist, grow, dwell, and so on, doing among the verbs? If it be objected that possess, adhere, are verbs because they are stable relationships rather than stable percepts, why then should equilibrium, pressure, current, peace, group, nation, society, tribe, sister, or any kinship term, be among the nouns? It will be found that an "event" to *us* means "what our language classes as a verb" or something analogized therefrom. And it will be found that it is not possible to define event, thing, object, relationship, and so on, from nature, but that to define them always involves a circuitous return to the grammatical categories of the definer's language.

In the Hopi language, lightning, wave, flame, meteor, puff of smoke, pulsation, are verbs—events of necessarily brief duration cannot be anything but verbs. Cloud and storm are at about the lower limit of duration for nouns. Hopi, you see, actually has a classification of events (or linguistic isolates) by duration type, something strange to our modes of thought. On the other hand, in Nootka, a language of Vancouver Island, all words seem to us to be verbs, but really there are no Classes 1 and 2; we have, as it were, a monistic view of nature that gives us only one class of word for all kinds of events. "A house occurs" or "it houses" is the way of saying "house," exactly like "a flame occurs" or "it burns." These terms seem to us like verbs because they are inflected for durational and temporal nuances, so that the suffixes of the word for house event make it mean long-lasting house, temporary house, future house, house that used to be, what started out to be a house, and so on.

Hopi has a noun that covers every thing or being that flies, with the exception of birds, which class is denoted by another noun. The former noun may be said to denote the class FC—B, i.e., flying class minus bird. The Hopi actually call insect, airplane, and aviator all by the same word, and feel no difficulty about it. The situation, of course, decides any possible confusion among very disparate members of a broad linguistic class, such as this class FC—B. This class seems to us too large and inclusive, but so would our class "snow" to an Eskimo. We have the same word for falling snow, snow on

the ground, snow packed hard like ice, slushy snow, wind-driven flying snow—whatever the situation may be. To an Eskimo, this all-inclusive word would be almost unthinkable; he would say that falling snow, slushy snow, and so on, are sensuously and operationally different, different things to contend with; he uses different words for them and for other kinds of snow. The Aztecs go even farther than we in the opposite direction, with cold, ice, and snow all represented by the same basic word with different terminations; ice is the noun form; cold, the adjectival form; and for snow, "ice mist."

What surprises most is to find that various grand generalizations of the Western world, such as time, velocity, and matter, are not essential to the construction of a consistent picture of the universe. The psychic experiences that we class under these headings are, of course, not destroyed; rather, categories derived from other kinds of experiences take over the rulership of the cosmology and seem to function just as well. Hopi may be called a timeless language. It recognizes psychological time, which is much like Bergson's "duration," but this "time" is quite unlike the mathematical time, *T*, used by our physicists. Among the peculiar properties of Hopi time are that it varies with each observer, does not permit of simultaneity, and has zero dimensions; i.e., it cannot be given a number greater than one. The Hopi do not say, "I stayed five days," but "I left on the fifth day." A word referring to this kind of time, like the word day, can have no plural. The puzzle picture (Fig. 3), will give mental exercise to anyone who would like to figure out how the Hopi verb gets along without tenses. Actually, the only practical use of our tenses, in one-verb sentences, is to distinguish among five typical situations, which are symbolized in the picture. The timeless Hopi verb does not distinguish between the present, past, and future of the event itself but must always indicate what type of validity the *speaker* intends the statement to have: (*a*) report of an event (situations 1, 2, 3 in the picture); (*b*) expectation of an event (situation 4); (*c*) generalization or law about events (situation 5). Situation 1, where the speaker and listener are in contact with the same objective field, is divided by our language into the two conditions, 1*a* and 1*b*, which it calls present and past, respectively. This division is unnecessary for a language which assures one that the statement is a report.

Hopi grammar, by means of its forms called aspects and modes, also makes it easy to distinguish between momentary, continued, and repeated occurrences, and to indicate the actual sequence of reported events. Thus the universe can be described without recourse to a concept of dimensional time. How would a physics constructed along these lines work, with no *T* (time) in its equations? Perfectly, as far as I can see, though of course it would require different ideology and perhaps different mathematics. Of course *V* (velocity) would have to go too. The Hopi language has no word really equivalent to our "speed" or "rapid." What translates these terms is usually a word meaning intense or very, accompanying any verb of motion. Here is a clew to the nature of our new physics. We may have to introduce a new term *I*, intensity. Every thing and event will have an *I*, whether we regard the thing or event as moving or as just enduring or being. Perhaps the *I* of an electric charge will turn out to be its voltage, or potential. We shall use clocks to measure some intensities, or, rather, some *relative* intensities, for the absolute intensity of anything will be meaningless. Our old friend acceleration will still be there but doubtless under a new name. We shall perhaps call it *V*, meaning not velocity but variation. Perhaps all growths and accumulations will be regarded as *V*'s. We should not have the concept of rate in the temporal sense, since, like velocity, rate in-

troduces a mathematical and linguistic time. Of course we know that all measurements are ratios, but the measurements of intensities made by comparison with the standard intensity of a clock or a planet we do not treat as ratios, any more than we so treat a distance made by comparison with a yardstick.

A scientist from another culture that used time and velocity would have great difficulty in getting us to understand these concepts. We should talk about the intensity of a chemical reaction; he would speak of its velocity or its rate, which words we should at first think were simply words for intensity in his language. Likewise, he at first would think that intensity was simply our own word for velocity. At first we should agree, later we should begin to disagree, and it might dawn upon both sides that different systems of rationalization were being used. He would find it very hard to make us understand what he really meant by velocity of a chemical reaction. We should have no words that would fit. He would try to explain it by likening it to a running horse, to the difference between a good horse and a lazy horse. We should try to show him, with a superior laugh, that his analogy also was a matter of different intensities, aside from which there was little similarity between a horse and a chemical reaction in a beaker. We should point out that a running horse is moving relative to the ground, whereas the material in the beaker is at rest.

One significant contribution to science from the linguistic point of view may be the greater development of our sense of perspective. We shall no longer be able to see a few recent dialects of the Indo-European family, and the rationalizing techniques elaborated from their patterns, as the apex of the evolution of the human mind; nor their present wide spread as due to any survival from fitness or to anything but a few events of history—events that could be called fortunate only from the parochial point of view of the favored parties. They, and our own thought processes with them, can no longer be envisioned as spanning the gamut of reason and knowledge but only as one constellation in a galactic expanse. A fair realization of the incredible degree of diversity of linguistic system that ranges over the globe leaves one with an inescapable feeling that the human spirit is inconceivably old; that the few thousand years of history covered by our written records are no more than the thickness of a pencil mark on the scale that measures our past experience on this planet; that the events of these recent millenniums spell nothing in any evolutionary wise, that the race has taken no sudden spurt, achieved no commanding synthesis during recent millenniums, but has only played a little with a few of the linguistic formulations and views of nature bequeathed from an inexpressibly longer past. Yet neither this feeling nor the sense of precarious dependence of all we know upon linguistic tools which themselves are largely unknown need be discouraging to science but should, rather, foster that humility which accompanies the true scientific spirit, and thus forbid that arrogance of the mind which hinders real scientific curiosity and detachment.

5.

A LINGUISTIC APPROACH TO A SYSTEM OF VALUES

By D. Demetracopoulou Lee

The Trobriand Islanders about whom this study is concerned have been studied intensively by Professor Bronislaw Malinowski, who has published his results in several monographs. This essay is based entirely on his writings.[1] It does not add any material to what Professor Malinowski has presented. It tries, rather, to formulate what is not explicitly stated;—the logical and ethical implications of the customary behavior of the Trobrianders. If at times I venture to disagree with Professor Malinowski's own deductions, it is only because, in presenting the material with such a wealth of pertinent detail and emotional association, he has made it possible for his readers to draw conclusions as valid as his own.

The Trobriand Islands lie to the east of New Guinea. They are in water where marine life abounds. The land is fertile. The bush is full of plants producing edible fruit. The islands are sparsely enough populated, so that hunger becomes a menace only in the rare years of drought. Yet here we find a society of people who work hard, though nature does not compel them to do so. The men rise early in the morning, to go to the fields, of their own will, so as to cultivate yams which they will not consume; or to go to work at overhauling or building canoes which shall serve to take them on dangerous voyages to bring back ornaments which cannot be used for their own adornment, and which can be possessed for only a few months. The men are honest in their dealings, they observe the taboos and fulfill their many obligations. Yet there is no direct political or social control over their activities. Our task is to discover whence comes the direction, control and motivation of Trobriand conduct. Our study will be an inquiry into the problems of value and standards of evaluation; it will investigate motive, activity and result. This involves a prior examination of questions of logical relationship.

It is inevitable that in a study of this kind I should run the risk of being blinded by the prejudices inherent in my own culture and system of thought. To minimize this danger, I have read intensively, every year for the last four years, Malinowski's two most complete books on the Trobriand social life, trying to steep myself in the Trobriand way of thinking. I waited till I saw Trobriand social behavior, language and overt statement as different aspects of one underlying system. Still, I offer my findings diffidently, as the conclusions of one who has penetrated only to the best of an outsider's ability.

An analysis of Trobiand behavior and language [2] shows that the Trobriander, by custom, focuses his interest on the thing or act in itself, not on its relation-

From D. D. Lee, "A Primitive System of Values," *Philosophy of Science*, 1940, VII, 355–365. Reprinted by permission of the author and the Williams & Wilkins Co., publishers.

[1] I have used principally the following books: *Argonauts of the Western Pacific; The Sexual Life of the Savages; Coral Gardens and their Magic;* — this last chiefly for linguistic material. As Malinowski did most of his field work in Kiriwana, my study deals mostly with this district. Some of the other monographs published by Malinowski on the Trobriand Islands are: *Sex and Repression in Savage Society; Myth in Primitive Psychology; The Father in Primitive Psychology; Crime and Custom in Savage Society; The Foundations of Faith and Morals.*

[2] In this section I run counter to the stated opinion of Malinowski, according to whom linguistic form contains no valid clew to cultural concept.

ships. His world appears to be a mosaic composed of elements which are self-contained as well as disparate. He himself remains apart, likewise, and refrains from passing judgment on this world. Unlike the more subjective European languages, his speech rarely contains comparisons; he offers no motive for acts, he deduces no causal connection from a sequence, he does not justify activity in terms extraneous to itself.[3]

The Trobriander has no linguistic mechanism for expressing a relationship between events or acts. Culturally, causation and teleology are either ignored or nonexistent. By this I mean, not that the individual Trobriander cannot understand causality, but that in his culture, the sequence of events does not automatically fall into the mold of causal or telic relationship. The texts which Malinowski has published contain no word such as *because*, no expressions such as *so as to, to this end*. Malinowski, constrained by the pattern of English speech, uses *because, cause* and *reason* in translation. But that which he renders as *because* is merely *for* in the Trobriand language. The word which he translates as *cause* or *reason* means *the lowest part of the trunk*. Now a trunk is that which precedes the branches, spatially and temporally, and from which the branches take rise; but we can hardly maintain that the trunk is the *cause* of the branches, or the *reason* for the branches. The word in question, *u'ula*, is used metaphorically, as elsewhere in this region, to refer to the organizer of a ceremony, as well as to the indispensable first section of a magical formula. Underlying these meanings must be a concept of a basis, or of a necessary precedence.[4]

Malinowski also uses the term *cause-to-be;* but what he so translates is literally *make-into,* to accomplish rather than to cause; i.e., it does not imply a relationship between two situations, but merely one complete activity, in which cause and effect are not separated. Otherwise, the Trobriander expresses subsequence rather than result; two situations which are unrelated except temporally. Both these types of situation, the accomplishing activity and the uninterpreted sequence of two events, are illustrated in the following excerpt, in which a Trobriander describes *taytu* (yam) magic: "We plant *taytu*, already it lies in the ground. Later on it hears magic above; already it sprouts. . . . The garden magician goes alone and charms. He (then) remains, he reposes, on the third day he will go and recite magic, he will make-emerge the *taytu*." [5] The garden magician describes his own procedure as follows: "At harvest there is plenty of *taytu*. I perform my *vilamalia* magic, the *taytu* is strong and good, I charm over the *kaykapola* (young coconut leaves). The next garden crops will be strong and plentiful." [6] Again, pure sequence of events is given in the following description: "We charm, he-might [7]-be-quick . . . he-might-abound, we-might-*sagali*." (We would charm, the palms would ripen quickly, the nuts would become abundant and we could make a *sagali*.) We are free to see in this either causation or teleology, interpreting according to our own bias. The following passage, similar in form, is given by Malinowski in terms

[3] I give below the grounds on which I base these statements. I make them on the basis of Malinowski's word-for-word translations, not his free translations.

[4] In opposing this to the meaning of the English *because*, I am referring to the concept of cause as held by the man in the street, not to the analyses and theories of our philosophers.

[5] All but the very last phrase is Malinowski's free translation of the passage. The last phrase I took from his literal translation, to avoid the causal terminology which he employs in his free translation. The future, as also the present, is Malinowski's rendition of an apparently tenseless form.

[6] Literally *is strong*.

[7] The *might* does not indicate probability, but is merely an arbitrary and convenient way of rendering an obscure non-temporal particle.

of teleology: "*Okwala*, he-might-grow truly, he-might-ripen." (The *okwala* rite is made so that the *taytu* might really grow, so that it might ripen.) Such a conception of sequence, invariable yet uninterpreted, is illustrated in the answer of a Trobriander who was asked what would happen if a man broke the rule of exogamy. He said that an insect would grow in the body of the offender. Malinowski wanted to know exactly how this would happen. The informant said it was like maggots in a corpse; the corpse just makes them. In the same way the insect is made in the body of the exogamy-breaker. Under given conditions, maggots invariably follow death; yet we would not maintain that death causes maggots. This cultural stress on simple sequence rather than causal relationship may account for the Trobriander's ritual ignorance of physiological paternity.[8] One of Malinowski's informants told him the following: "Pig, dog, they-might-copulate, they-become-pregnant, they-give-birth." When it was pointed out to him that this showed a causal relationship between copulation and pregnancy, thus implying the existence of physiological paternity, he denied this relationship, saying that copulation simply had to precede pregnancy.

The lack of a teleological view of activity influences Trobriander behavior profoundly, and will occupy us in the next section. Here I shall merely illustrate it briefly. There is the Trobriander's attitude toward the pearl-trader, for example. When the traders first arrived at the Trobriand Islands, they could get no one to work for them, since the natives would not work for love, and had no ready-made pattern for working merely for results, i.e. for pay. Only when diving-for-pay was made to resemble, though only superficially, the native pattern of reciprocal obligations, could the pearl-trade flourish to any extent. Again, the Trobriander cannot comprehend the white man's proclivity to drink so as to get drunk; nor the white man's conception of food as nourishment, as a means toward the maintenance of life; to the Trobriander eating is merely a pleasant activity. This lack of interest in extraneous ends is clearly apparent in the answers given to Malinowski's questions about results. When he asked the Trobrianders whether the breaking of a certain taboo would be baneful to their success in a certain undertaking, the reply was that they were afraid of breaking it, that it was ordained of old; not a direct reply to the question, which probably had no meaning for them. When they were asked what would be the result if certain spells were to be omitted, or certain duties shirked, the answers showed disagreement among themselves, and lack of clarity. In fact, Malinowski states repeatedly that questions about results brought confused answers. This does not mean that a Trobriander never acts toward a definite end; only that Trobriand culture has no convention for motivating action in terms of ends. This can be best understood in contrast to our own cultural convention, according to which, linguistically, we identify the end with the cause of action ("Why do you teach?" "Because I have to earn a living."), and is considered customarily to be the main or only motive for the action, though actually it often is not (actually, I teach primarily because I enjoy teaching and the academic life). Only reflection makes the individual see beyond the conventional motive. So with the Trobrianders; a causal relationship is undoubtedly seen in isolated cases, and activities are probably individually motivated by the thought of the desired consequences. But since the culture provides no convention, the Trobrianders could not produce automatically the correct answer for Malinowski. Each man had

[8] I am indebted to Dr. Grace de Laguna for drawing my attention to this point.

to think out his own answer; hence the confusion and disagreement.

The absence of a cause-and-effect pattern of thought appears in the lack of a sense of history. On the one hand, the Trobriander uses no clear temporal categories in his speech. What Malinowski calls a future, is used to indicate the past, the present and the future, as well as the potential, event. The particle—*l* serves to point to the past, to indicate the present emphatically and definitely, and to show accomplishment. *Boge*, which Malinowski renders as *already*, also stands for the present. Sequence may be stressed, but not in relation to specified time. Though sequence within a sentence is usually an index to sequence of occurrence in time, the sentence often reverses this sequence, putting the present before the past. This is illustrated in the following phrases: "Coconut, areca-nut he-fruit, no he-might-flower," when, obviously, the flowering is expected to come before the fruit; and, "This-here (old part of taro) he-might-rot-away, already he-stand-up new-sprout, already he-rot-away old-taro." It is the modal or aspectual, not the temporal, phase of the event, I believe, which is really brought forward. Potentiality, achievement, completion, definiteness, emphasis are indicated at most; and the event remains self-contained and essentially unrelated.

On the other hand, as Malinowski points out, the Trobriander has no conception of progressive change, no idea of one event leading up to another. Chronological sequence is unimportant. The past is not an ordered series, but rather a chaotic repository of unrelated events, which, at best, are remembered as anecdotes. It is true that there is a more systematic interest in myths and that these describe past conditions; but, for the Trobriander, what is outstanding about mythical conditions is not the fact that they are past so much as that they belong to a different and disparate order of things. When Malinowski explained about aeroplanes and showed photographs of them he was asked whether this was *lili'u* (mythological). There is the world of present reality, and the world of *lili'u*. This is an entirely separate world, yet in this lie the roots of the Trobriander's being. At first there were no people, then, unexplainedly, the ancestors of the Trobrianders emerged from the earth, complete with magic and present-day customs. There is no attempt to trace chronologically the connection of the mythical past with present reality. In fact, there is no interest in relating the two worlds. There is a feeling that the mythical world, whether past or contemporaneous, can be bridged over to this world through magic, which is an interworld activity, so to speak. This attitude became evident as a result of Malinowski's questioning and interpretation; but it is doubtful whether the Trobriander, if left to himself, sees or formulates this relationship between his two worlds.

The absence of devices for the expression of causality and the means-and-end relationship is not an isolated fact in the Trobriander language. In fact, the Trobriand sentence is a series of self-sufficient words with almost no morphological mechanism to relate one to the other. The only relational device which occurs is a type of possessive, with a strong substantive flavor. Otherwise the words are self-contained. Pronominal particles which indicate either the subject or the object are incorporated in the verb. There is nothing morphological in the sentence to indicate the relation of noun to noun, or verb to verb, or noun to verb. Even position in the sentence is not used for this purpose. For example, there is nothing, either in morphology or in sentence position, to tell the hearer whether the man bit the dog, or the dog the man. In this, again, I see a degree of aloofness on the part of the Trobriander, and an implication of the self-sufficiency of each object

of knowledge; an interest in the essential rather than the accidental or relational. I am not maintaining here that the Trobrianders recognize no relationship or attribute whatsoever. Obviously, if such were the case, I should be forced to hold that they have no language, since all words are, at base, attributive and classificatory. But I want to make the point that the name which the Trobrianders give to an object applies directly to the nature of the thing, and only incidentally to its attributes. The Trobriander does not analyze the nature of things, to dissolve it into attributes or relationships; he does not direct his interest toward transcending the object in any way whatever.[9] His attitude toward events, historical and mythological, points to this conclusion; so does his reason for the keeping of a taboo;—*it was ordained of old.* It is not the pressure of authority which motivates the observance of the taboo, but the nature itself of the taboo. The observance of the taboo is an end in itself.

Things as well as events are viewed aloofly, as complete and disparate. Objects are good not because they are of use, but because of an element which went into the making of them; because they contain goodness. According to Malinowski, even magical potency is such an ingredient element. It is conveyed from the spell into the substances which are to be affected. If these substances are not to be used immediately, they have to be wrapped and tied and covered; in this way, the magic power is imprisoned within them. Goodness, I believe, is a component of the *vaygu'a*, a certain class of objects which are of no utility but of supreme value. Whenever a malignant spirit, in the shape of a snake or land-crab, is found near or in the village, such *vaygu'a* are put before it, not as a peace offering, but to impart to the spirit some of the goodness contained within them and so make it benevolent. When a man is dying or dead, his body is surrounded and covered with *vaygu'a* which are afterwards removed. Also a certain class of yams, yams received or to be given as a gift, contain goodness. These are so full of goodness that every year, though gift yams form easily half the yam supply of the Trobrianders, the magician works spells over them, so that men should lose all interest in consuming them. This magic takes away people's appetites, or makes[10] them develop an abnormal yearning for the uncultivated products of the bush; while the gift yams are "anchored" to the yam house, and rot unconsumed through the year. At every opportunity, both the *vaygu'a* and the gift yams are handled and otherwise touched, giving pleasure and satisfaction through their goodness.

Thus it appears that the Good is not a relational attribute, but an ingredient part of delimited substance, of each good-thing. To the Trobriand speaker, a man is not a good gardener or a poor gardener; he is a garden-wielder or a garden-weary-man. These are simply different varieties of gardener. The words *good* and *bad*, as attributes, are of rare occurrence in Trobriand speech. In fact, in the language of the Trobrianders, pure adjectival concepts do not exist; an adjective must always incorporate a nominal particle which indicates the class of substantives to which it refers, and which thus makes the concept primarily substantival. This is true also of such adjectival concepts as *this* and *that* and of numbers. Only when counting baskets of yams can a Trobriander use a number with no substantival element; but even here, through the very lack of such an element, a specific class of objects is implied.

[9] The fact that this type of language is found over a far-flung area does not, I believe, invalidate my thesis. Conventions of thought are also to be found spread over a wide region.

[10] Since I express myself in the English language, I am forced, here and hereafter, to make use of expressions which might imply causal relationship.

since the Trobrianders are interested primarily in the particular aspect of immediate qualities, it follows that they are not given to abstracting and comparing qualities. Thus, in the Trobriand texts we find many metaphors—one object substituted for another—but similes are rare. In the free translation of metaphor, Malinowski enlarges out the quality which he thinks has given rise to it and then almost always presents the phrase as a simile. This is necessary because he is writing for a culture which is preeminently interested in similarities and classification. For example, the phrase which the Trobriander renders merely as "thou *yolu'ula*," Malinowski translates as, "*make thyself thick as the yokwa'ula.*"

In the speech of the Trobrianders as quoted by Malinowski, only two terms of comparison occur, and these rarely. These are *makawala*, whose generic meaning appears to be *to be of a type with*, and *i-tuwali* which apparently means *to be distinct from*. There is no grammatical device like our own adjectival suffixes for the expression of relative degree, as *-er* and *-est;* terms like *relative, comparative, equal, normal, average,* are lacking. It is inevitable that Malinowski should translate many phrases by means of English comparatives, if only to make the phrase comprehensible to his readers; but such translations obscure the issue which occupies us, and make it difficult to tell whether the Trobriander means to express comparison or not. There are certain statements in the text which may obviously spell comparison to the non-Trobriander. We find expressions such as follows: "Thy fullness is that of the *waybitu* plant. Thy foliage is that of the *yokwa'oma* creeper." Other phrases seem to contain an element which we express through the comparative stage in English. For example: "The renown of Kerawa is small, my own renown flares up." Should we take this to mean, in essence: "My own renown is greater than that of Kerawa"? And again we find: "The trunk of the *fau* tree is not large—it is the body of my *tayta* which is large. The trunk of the pandanus is not large—it is the body of my *tayta* which is large." We are tempted to translate this as: The body of my *tayta* is larger than the trunk, etc. But then to our consternation, the charm continues: "This is not thine eye, thine eye is the morning star." The style and phrasing are the same. It is a conventional form of expression and occurs in other texts also. I quote a literal translation of a similar phrase: "No thy flight, thy flight parrot; no thy nibbling, thy nibbling rat." This phrase Malinowski is constrained by English convention to translate as follows: "Thy growth be as the flight of the green parrot, the boring of thy roots as the nibbling of rats." Obviously, the phrase, though so similar to the one given above, cannot, like that phrase, be translated in terms of our grammatical comparative. Should we follow the example of Malinowski and translate it through a simile, I believe that we should be reading our own meaning into the Trobriander's expression. I believe that, for the Trobriander, even when juxtaposed in his thinking or speaking, objects remain unaltered, complete and disparate. What to us is the ultimate comparison, the superlative, is to him, I believe, the ultimate disparity.—"My renown stands alone," he boasts; "my name is the only one."

We discover, then, in the Trobriander language, a sentence composed of essentially disparate and unrelated words. We find that, in his speech, the Trobriander rarely compares, does not express causality or the telic relationship, feels no conventional urge to go beyond the fact into its implications or relationships.

V

Suggestion, Imitation, and Sympathy

1.

SUGGESTIBILITY AND LEVELS OF DIFFICULTY

By Thomas E. Coffin

Continuing the investigation of situational conditions of suggestion, the following experiment is concerned with the factor of complexity or difficulty of the situation to which the subject is required to respond. In what manner will suggestibility vary when individuals are faced with tasks of graded difficulty? Further, the subjective "difficulty" of a task may well be dependent upon the amount of pertinent knowledge or information possessed by the individual. Will we find varying degrees of suggestibility among subjects with different levels of knowledge or training in regard to the task?

Method

The materials of this experiment consisted of sixteen problems in mathematics. The field of mathematics was chosen as affording tasks of graded difficulty; it had the further advantage that the amount of pertinent information or training in this area could be roughly graded according to the number of years a subject had studied mathematics in high school and college.

The problems were chosen, for the most part, from a textbook in college mathematics. Simpler problems were taken from the earlier chapters and more advanced problems from succeeding chapters. To conceal the purpose of the experiment, these problems were mimeographed in booklet form, under the title "Richardson Number Facility Test." This was presented to the subjects as a "mathematical aptitude test," whose authorship was attributed to the mathematics department of another institution.

The suggestions were introduced in the form of "hints" penciled in the spaces provided for working out the problems. It was "explained" to the subjects that the test had been found to require more time for completion than had been anticipated, so the authors had reduced the labor necessary by giving hints as to the answers or by indicating the first steps in procedure. The hints were inserted in pencil in order to suggest their addition as an afterthought and to render plausible the statement as to their origin and purpose. Later questioning of the subjects revealed that they accepted without suspicion this explanation of the hints. Most of the hints given suggested incorrect procedures. However, to establish confidence in the suggestions, two of the problems in the first two groups (problems 1 and 2, group I; problems 3 and 4, group II) were given "correct" hints.

From T. E. Coffin, "Some Conditions of Suggestion and Suggestibility: a Study of Certain Attitudinal and Situational Factors Influencing the Process of Suggestion," *Psychological Monographs*, 1941, LIII, No. 4. Reprinted by permission of the author and the American Psychological Association, Inc.

The test was given to a preliminary group of 26 subjects. On the basis of their results a few minor changes were made in the formulation of the suggestions, to permit of clearer distinction between "suggestion" responses and "nonsuggestion" responses. To increase the "difficulty" of the task, it was found advisable to reduce the time-limit from one hour to thirty minutes.

Subjects

To obtain subjects with varying amounts of information and training, the test was given to classes in elementary psychology and to the mathematics class in differential and integral calculus. From these two sources we obtained groups with a wide range in amount of mathematical training.

For purposes of classification, the subjects were grouped according to the number of years of mathematics studied. One year of high school mathematics was considered as equivalent to one-half year of college mathematics. Thus, if a student stated that he had taken four years of high school mathematics and two years of college mathematics, his "total years of mathematics" would be four years. In defining "elementary mathematics" and "advanced mathematics," three or more years of college mathematics (or the equivalent) were considered "advanced" and less than three years, "elementary."

Scoring of the Test

All papers were scored by two senior majors in mathematics, with the assistance of the Chairman of the Department of Mathematics at Hofstra College.[1] Working independently, these judges classified each response as "suggestion" or "nonsuggestion."

The instructions for the test directed the subjects to show on their papers all work done on each problem:

> Do not do the work in your head and just write the answer. There is space provided with each problem on which to do all your figuring. And please do not erase work you have put down; cross it out, if you wish.

From the work shown on the papers, the judges were able in most cases to decide whether the student had proceeded according to the method suggested or had rejected the suggestion in favor of his own procedure. The basis for classification was, therefore, the correspondence between the subject's procedure and that suggested by the "hint." "Correctness" of the answer itself was disregarded. However, since most of the suggested procedures were misleading, answers obtained by following the suggested method were usually incorrect. For example, in the problems involving algebra, incorrect equations were penciled in. If the subject accepted the equations and proceeded to solve them as given, his response was considered "suggestion." If, on the other hand, he rejected the suggested equations and set up his own equations for solution, the response was considered "nonsuggestion," regardless of whether his final answer was correct or incorrect.

In compiling the results, account was taken of the agreement of the judges and of the adequacy of the evidence displayed in the "figuring" accompanying each answer. Where the derivation of the subject's paperwork was not clear or where all judges did not agree as to the appropriate classification of a response, the problem was considered as "unclassified." Cases in which the evidence was clear and all judges agreed as to the proper classification were placed in the categories "suggestion" or "nonsuggestion."

[1] The writer wishes to express his appreciation to Misses Grace Mojzis and Edna Chickray and to Mr. C. E. Stevens, Assistant Professor in Mathematics, for their gracious and valuable assistance in the preparation and scoring of this test.

Suggestibility and Difficulty of Task

Our first question concerns the relation of suggestibility to the difficulty of the task. The problems contained in the test were obviously of varying degrees of difficulty, and it was at first hoped that they could be ranked in these terms by expert judges. Accordingly, the problems were presented to two professors of mathematics. After ranking the problems, these judges expressed the opinion that their own rank-orders might not correspond to the order of difficulty experienced by our undergraduate subjects. Moreover, to the instructors, the problems were of such a simple order that they were not confident of their discriminations.

Therefore, it was thought that a more valid and defensible procedure would be to get measures of difficulty from a population comparable to that tested in the experiment. By presenting the same problems, without the suggestions, and determining the number of students able to solve each problem, we could obtain a valid measure of their difficulty to students of given levels of mathematical training. The new form of the test, containing the same problems, was identical with the original except for the omission of the suggestions. It was given to comparable groups of students, in two sections of the elementary psychology course and in one section of the calculus course. As with the subjects of the suggestion experiment, the students were divided into an "elementary mathematics" group (less than three years of college mathematics) and an "advanced mathematics" group (three or more years of college mathematics, or the equivalent). The total number of "control" subjects was 71, 47 elementary and 24 advanced mathematics students. These proportions are roughly comparable with those in the suggestion experiment, in which there were 49 subjects, 29 elementary and 20 advanced mathematics students.

The papers of the control subjects were graded by the regular undergraduate reader in the department of mathematics. Two records of the scores were made: first, the number of students who gave the correct answer for each problem; secondly, the "grade" made on each problem. As in scoring ordinary examination papers, the reader assigned partial credit for problems correctly begun but uncompleted, or incorrectly completed because of a minor arithmetic error.[2] Since "difficulty" is not an all-or-none phenomenon, it was thought that the relative "grades" on the problems provided a more valid measure of difficulty than the absolute scorings. Hence the measure employed in computing correlations was that obtained by averaging the percentage-score (100 percent = entirely correct, 0-percent = complete failure) of all students for each problem. As was expected, the order of difficulty of the problems was somewhat different in the elementary and advanced groups. The rank-difference correlation of these scores was .87. In comparing suggestibility-scores with difficulty-scores, account is taken of this difference by comparing "elementary mathematics" scores with each other and "advanced mathematics" scores with each other.

To discover the relation between suggestibility and difficulty of the task, the difficulty-scores were correlated with the suggestibility-scores. The suggestibility-scores represent the percentage of subjects in each group whose answers, to a given problem, were classified as "suggestion." Since, for different problems, variable numbers of answers were "unclassifiable," the unclassified answers

[2] For the elementary mathematics groups, the rank-orders of the problems scored in these two ways corresponded exactly. For the advanced mathematics group the rank-orders of two problems were displaced by one point.

TABLE 1

DIFFICULTY AND SUGGESTIBILITY OF EACH PROBLEM

Problems		Elem. group		Adv. group		Total group	
Group	No.	D	S	D	S	D	S
I . . .	1	91	75.9	96	15.0	93	51.0
	2	64	72.4	74	50.0	67	64.0
	3	87	0.0	92	5.3	89	2.1
	4	77	100.0	75	89.5	76	96.0
II . . .	1	91	39.3	91	5.3	93	25.0
	2	98	10.3	100	45.0	99	24.5
	3	72	48.3	83	60.0	76	53.0
	4	38	27.6	72	5.6	50	19.1
III . . .	1	83	6.9	96	10.0	87	8.2
	2	0	96.4	4	90.0	1	93.7
	3	49	75.0	79	35.0	59	58.4
	4	63	71.4	96	33.3	74	52.0
IV . . .	1	18	79.2	63	15.0	33	50.0
	2	52	50.0	86	10.0	63	32.6
	3	11	75.0	53	35.0	25	57.0
	4	4	85.5	18	63.6	8	76.0
Rho, D & S =		.56		.47		.53	

(In the D columns are shown mean "grade" received on each problem. The S columns show the mean percentage of answers classified as due to suggestion.)

TABLE 2

RELATIONSHIP BETWEEN SUGGESTIBILITY AND DIFFICULTY OF PROBLEMS

Group	Level of Suggestibility			
	1	2	3	4
Elementary				
Percentage suggestibility	11.2	52.2	76.6	90.3
Percentage correct answers	76.5	69.5	54.0	25.0
Advanced				
Percentage suggestibility	6.5	15.8	41.2	75.8
Percentage correct answers	88.9	85.2	76.4	45.5
Total				
Percentage suggestibility	12.5	39.6	59.0	82.4
Percentage correct answers	81.2	70.5	55.1	38.1

were omitted in computing these percentages. Suggestibility-scores therefore indicate the *proportion of classifiable responses judged to be the result of suggestion.*

Table 1 gives a record of the difficulty-score and the suggestibility-score for each problem and for each group of subjects. Since the difficulty-scores are expressed in terms of the mean percentages of correct answers, the more closely the value approaches 100 percent, the less the difficulty; the more closely the score approaches 0 percent, the greater the difficulty (i.e., the smaller the number of correct answers).

The rank-difference correlations of these orders are consistently positive, but of only moderate value. For the elementary mathematics groups, the correlation between difficulty and suggestibility is .56, P.E. = .07. For the advanced mathematics groups, the correlation is .47, P.E. = .11. For the entire group, elementary and advanced mathematics together, rho = .53, P.E. = .06. The suggestibility-scores on the preliminary experiment were also correlated with the difficulty-scores of the entire group, which had approximately the same distribution of elementary and advanced mathematics students as did the preliminary group. This correlation is of the same order as the others, rho = .49, P.E. = .10.

The relation of suggestibility to difficulty of the problem is also brought out in Table 2. The sixteen problems were divided into four "levels of suggestibility," by taking the four problems with the highest suggestibility scores as most suggestible (group 1), the four of next highest score as second in suggestibility (group 2), etc. The difficulty-scores of the corresponding problems were averaged, and these averages are presented in Table 2, together with the average suggestibility-scores of each group of problems. The results are given separately for the elementary and advanced groups, and for the total group as a whole.

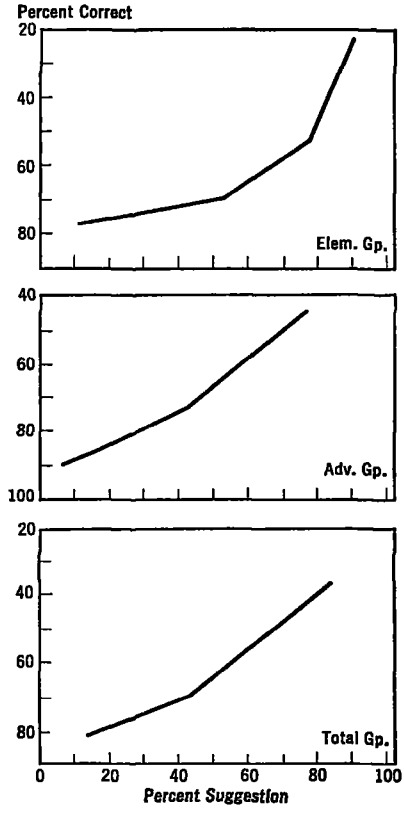


FIG. 1. Difficulty and suggestibility, showing relationship between difficulty (percentage correct answers by control groups) and suggestibility of problems for elementary mathematics, advanced mathematics, and total group.

It will be seen that, for the elementary group, the control subjects were able to give three times as many correct answers to the four problems which were least suggestible as for the four problems most suggestible. For the advanced group, nearly twice as high a percentage of correct answers was given for the least suggestible problems as for the most suggestible problems. For the entire group, the problems producing least suggestion were again twice as likely to be correctly answered by the control students. In each case, with increasing percentage of

TABLE 3

RELATION BETWEEN SUGGESTIBILITY AND TRAINING

Years of mathematics	No.	No. suggn.	% sgn.
0.5–1.25	15	9.1	62.8
1.5–2.25	9	7.4	48.8
2.5–3.25	9	6.3	40.3
3.5–4.75	11	5.2	33.2
5.5–7.50	5	5.4	35.6

TABLE 4

ACCEPTANCES OF SUGGESTION BY ELEMENTARY AND ADVANCED MATHEMATICS GROUPS

Group	Number of subjects	Number of problems		
		Nonsuggn.	Suggn.	Unclassified
Elementary mathematics	29	180	252	32
Advanced mathematics	20	203	104	13
Totals	49	383	356	45

suggestion-responses goes increasing difficulty of the problems. This relationship is shown graphically in Figure 1.

Thus we may say that there is a tendency for suggestibility on problems to increase with the difficulty of the problems. Though this relationship is by no means perfect, it appears consistently and to approximately the same degree with groups who have studied little mathematics, with groups who are advanced in mathematics, with the two groups taken together, and even with the group given a preliminary test under slightly different conditions.[3]

TRAINING AND SUGGESTIBILITY

The second phase of this investigation concerns the relation between suggestibility and information or training. Will we find that subjects of varying degrees of training in mathematics display corresponding degrees of suggestibility to the "hints" accompanying the problems?

The subjects were divided into groups according to the number of years of college mathematics they had studied. The range of years of mathematics studied was from 0.5 to 7.5, and it was found that a class-interval of one year of mathematics yielded groups most nearly equal in number of cases. However, owing to the small number of subjects in the upper brackets, the last two intervals were broadened, to encompass a more nearly significant number of cases.

Table 3 presents the five groups, of different levels of training, and the mean number and percentage of their answers which were judged to be the product of suggestion. It will be seen that with the exception of the most advanced group,

[3] The relationship might have been yet closer, had it been possible to make the "hints" all of equal plausibility. Of course, one step in this direction would be to make them constant in form. Even barring the difficulty of doing this for various types of problems, however, it is likely that this procedure would invite discovery and therefore reduce completely their effectiveness.

TABLE 5

SUGGESTIBILITY AND NONSUGGESTIBILITY AMONG INDIVIDUAL SUBJECTS

Group	Suggestible		Nonsuggestible	
	No.	Percent	No.	Percent
Elementary math.	19	65.5	10	34.5
Advanced math.	2	10.0	18	90.0

both the number and percentage of suggestion-responses decreases with increasing years of training. The group which has studied less than one and one half years of mathematics accepted approximately twice as many suggestions as did the groups which have studied three and one half or more years of mathematics.[4] This relationship is shown graphically in Figure 2.

Since it was difficult to find a division of the group which yielded enough categories, with even distribution of cases in each, to permit of correlation by the rank-difference method, resort was had to the method of tetrachoric correlation. The subjects were divided into two major groups, elementary (less than three years of college mathematics) and advanced (three or more years of mathematics). The total number of suggestion and nonsuggestion responses were computed for each group, as shown in Table 4. We find that, out of 432 answers, the elementary mathematics group made 252, or 58.5 percent suggestion-responses. For the advanced mathematics group, only 104 out of 307, or 33.9 percent, were suggestion-responses. The tetrachoric correlation of the proportions in Table 4 is $r_t = .39$, indicating a rather moderate tendency for resistance to suggestion to be associated with relatively advanced training in mathematics.

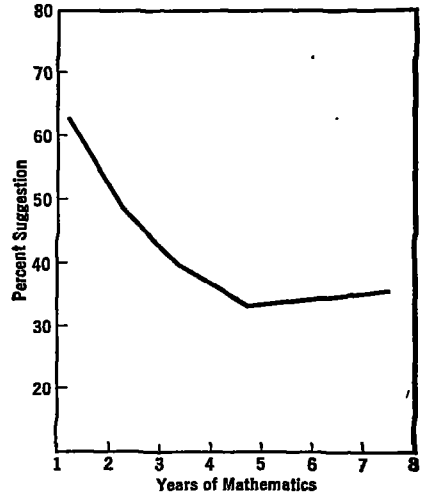


FIG. 2. Suggestibility and training, showing the relationship between years of mathematics studied and percentage of answers judged the product of suggestion.

The same tendency is evident if we classify the individual subjects themselves as suggestible or nonsuggestible, according to the majority of their responses. Table 5 indicates the number and percentage of subjects in each group who returned a majority of suggestion-responses or of nonsuggestion responses. While, in the elementary mathematics group, nearly twice as many subjects were suggestible (19) as were nonsug-

[4] There is a slight increase in suggestibility with the 5.5–7.5 group over the group of 3.5–4.75 years of mathematics. This may be due in part to the smaller number of cases in the more advanced group (5 as against 11 subjects). However, this result is also affected by certain differences in motivation, as will be pointed out below.

gestible (10), in the advanced mathematics group nine times as many were nonsuggestible (18) as were suggestible (2).

These results are in general agreement with those obtained from the preliminary experiment. With the twenty-two elementary mathematics subjects in the preliminary investigation, 55.4 percent of the responses were influenced by suggestion, while the four advanced mathematics subjects returned only 37.5 percent suggestion responses. Of the individuals themselves 63.7 percent of the elementary mathematics group were suggestible in a majority of their responses, and 25 percent of the advanced mathematics group were thus suggestible.

2.

AN EXPERIMENT ON THE OPERATION OF PRESTIGE SUGGESTION *By Helen Block Lewis*

Problem and Procedure

This study is an attempt to analyze some of the principles which govern the operation of authoritative standards, or "prestige influences" in the field of political judgment.

This central problem in social psychology has been the subject of many experimental investigations, most of which have confined themselves to quantitative demonstrations that "propaganda" or "suggestion" can be effective, causing "shifts" of this or that many percent when it is written or oral,[1] "logical" or "emotional" [2, 3] or when it is accompanied by "prestige." [4, 5, 6, 7] The dynamics of these "shifts" have remained relatively untouched. How does an individual change his judgment under the influence of authoritative propaganda? Does the insistence of an authority establish an unconscious "emotional conditioning" so that, as F. H. Allport [8] suggests, the individual uncritically and unresistingly succumbs to the new idea? How then does the individual resist propaganda? Allport, in keeping with the generally mechanistic hypotheses which his book illustrates, suggests that this is a "special trait of the personality." A special class of persons are "negativistic." [9] Put in other terms, the acceptors of suggestion are "suggestible" persons,

Adapted by the author from data more fully reported in "Studies in the Principles of Judgments and Attitudes: IV. The Operation of 'Prestige Suggestion,'" *Journal of Social Psychology*, 1941, XIV, 229–256, with permission of the publisher.

[1] F. Knower, "Experimental Studies of Changes in Attitudes," Part I, *J. Soc. Psychol.*, 1935, VI, 315–317; Part II, *J. Abnor. & Soc. Psychol.*, 1936, XXX, 522–532; Part III, *J. Appl. Psychol.*, 1936, XX, 114–127.

[2] A. D. Annis and N. C. Meier, "The Induction of Opinions through Suggestion by Means of 'Planted Contents'," *J. Soc. Psychol.*, 1934, V, 65–81.

[3] F. Knower, *op. cit.*

[4] M. Saadi and P. R. Farnsworth, "The Degree of Acceptance of Dogmatic Statements and Preference for Their Supposed Makers," *J. Abnor. & Soc. Psychol.*, 1934, XXIX, 143–150.

[5] M. Sherif, "A Study of Some Social Factors in Perception," *Arch. of Psychol.*, 1935, No. 187.

[6] M. Sherif, *The Psychology of Social Norms* (New York: Harper & Bros., 1936).

[7] H. J. Wegrocki, "The Effect of Prestige Suggestibility on Emotional Attitudes," *J. Soc. Psychol.*, 1934, V, 384–394.

[8] F. H. Allport, *Social Psychology* (Boston: Houghton Mifflin Co., 1924).

[9] Thus Barry (H. Barry, Jr., "A Test for Negativism and Compliance," *J. Abnor. & Soc. Psychol.*, 1931, XXV, 373–381), for example, in a study following Moore's work, tells us that "negativistic"

while the rejectors of it are "nonsuggestible." But Allport offers us no empirical evidence for his dichotomy any more than he has empirical evidence that unconscious, or uncritical, or semihypnotic submission is at the basis of the process of judgment change.

An alternative hypothesis might be formulated as follows: when changes in judgment occur, it is normally because the material to be judged is seen in a new light and has consequently changed its meaning. It follows from this hypothesis that changes in judgment cannot occur when the perceptual field of judgment is unambiguous and stable. "Prestige influences," "authoritative standards," and "suggestions" operate when the material to be judged is susceptible of more than one meaning. In such cases, the introduction of these factors *can* (although by no means always does) result in a restructuring of the material so that another and perhaps quite contrary judgment is demanded.

This formulation of the problem of judgment change stems out of the general approach of the Gestalt psychologists to problems of perception and learning. The hypothesis to be tested in this study was developed under the stimulus of Professor Max Wertheimer's seminars. (S. E. Asch explicitly stated this formulation of how judgments change in his paper on ego and group standards in judgment,[10] which was part of a series of papers on judgment.[11, 12] If judgment of an object or idea is considered to be an organized response to the organization present in the object itself—changes in judgment should occur not arbitrarily, not as a result of the random evocation of this or that conditioned response, but as a result of appropriate response to changes in the organization of the object to be judged.

Let us illustrate this hypothesis with a simple case: The judgment that "it is raining today" will be maintained (if true) even if one is told that the Weather Bureau expert says it is not. On the other hand, my judgment that "from all signs it will rain tomorrow" is quite likely to change in the face of the contrary prediction of the Weather Man, particularly if he is kind enough to tell me all the good meteorological reasons why he thinks so. In this case, the prestige of the Weather Bureau does not operate to create a mysterious sense of submission on my part. Rather the additional aspects of the situation which the Weather Bureau either shows me or allows me to infer, in addition to the perfectly reasonable respect I have for superior information, may *demand* a change in my judgment, or at least convince me that a change of my prediction is wise. In any case, and this is the crux of our hypothesis, my change of judgment, when analyzed, need not turn out to be uncritical or unreasoning.

Some of the studies in the field of prestige suggestion offer at least indirect support for our hypothesis. The study of Annis and Meier,[13] for example, in which subjects were dosed with propaganda about an unknown political figure, showed that the suggestions were extremely effective in causing large shifts of opinion. Propaganda is effective, in other words, provided it has a clear field of ignorance

persons are "critical," "irritable," and "derogatory" of others . . . and call their instructors by first names!

[10] S. E. Asch, "Studies in the Principles of Judgments and Attitudes: II. Determination of Judgments by Group and Ego Standards," *J. Soc. Psychol.*, 1940, XII, 433–465.

[11] S. E. Asch, H. Block and M. Hertzman, "Studies in the Principles of Judgments and Attitudes: I. Two Basic Principles of Judgment," *J. Psychol.*, 1938, V, 219–251.

[12] H. B. Lewis, "Studies in the Principles of Judgments and Attitudes: II. The Influence of Political Attitude on the Organization and Stability of Judgments," *J. Soc. Psychol.*, 1940, XI, 121–146.

[13] A. D. Annis and N. C. Meier, *op. cit.*

in which to operate. Kulp's study [14] showed, further, that authoritative suggestion must somehow be consonant with the subject's frame of reference to be effective. More direct evidence was obtained from unpublished experiments performed in the Brooklyn College laboratory by S. E. Asch,[15] in which the reasons were sought for the kind of shift in rating of verbal passages which Sherif [16] and Lorge [17] induced. The simple technique of questioning subjects revealed that entirely different meaning could accrue to an identical verbal statement as a function of the putative authorship of the statement. With different meanings came, naturally, different ratings.

The experiments to be reported here will offer additional evidence that the easy changes of opinion so frequently reported in the literature of social psychology are in great measure dependent upon the vague, often tricky character of the materials with which this literature has dealt. Since this study is the product of several experiments conducted over a two-year period, the main outlines of general procedure will be described before details are offered.

A sizable group of Brooklyn College students was asked to rank 10 political slogans, chiefly of contemporary significance, for five characteristics: "compellingness to action," "social significance," "personal inspiration," "author's intelligence," and "approval." The slogans were:

A. Give me liberty or give me death!
B. America first!
C. No peace without honor!
D. Balance the budget!
E. United we stand, divided we fall!
F. Preparedness for peace!
G. Share the wealth!
H. Workers of the world, unite!
I. Down with all imperialist wars!
J. America for Americans!

Each subject was asked to state, anonymously if he preferred, his political party preference. Mean rankings of each slogan for each characteristic were calculated for the total group and according to the stated political party preference of the subjects. These mean rankings, translated into simple rank-order, were known as the Control rankings. Some time later, four other groups of similar subjects, known as the Experimental groups, were presented with a prepared test sheet containing a ranking of the same slogans for "author's intelligence" purporting to have been made by an important national political figure. The subjects were asked to rank the slogans for the remaining characteristics and, again, asked to state political party preference. In each of the four Experimental groups, the presented ranking for author's intelligence bore a definite relationship to the Control ranking for "author's intelligence" evolved by the first group of subjects.[18] For Experimental Group *A*, the ranking presented was correlated +1.00 with the Control ranking, i.e., was an exact duplicate of it, and was presented as the opinion of President Franklin D. Roosevelt. For Experimental Group *B*, the presented ranking was correlated −1.00 with the Control ranking, i.e., was exactly the reverse of it, and was also ascribed to President Roosevelt. Experimental Group *C* received a standard purporting to be the opinion of ex-President Hoover, but this time correlating +1.00 with the Control ranking. Experimental Group *D* received a negatively correlat-

[14] D. H. Kulp, "Prestige as Measured by Single Experience Changes and Their Permanency," *J. Educ. Res.*, 1934, XXVII, 663–672.

[15] S. E. Asch. Unpublished experiments.

[16] M. Sherif, *The Psychology of Social Norms*, *op. cit.*

[17] I. Lorge, "Prestige, Suggestion, Attitudes," *J. Soc. Psychol.*, 1936, VII, 386–402.

[18] The rankings for this characteristic ("author's intelligence") were found in this and preceding studies to correlate highly with rankings for other characteristics. (See footnotes 11 and 12.)

SAMPLE TEST SHEET [19]

In a recent informal discussion with Washington newspapermen about politics, *President Roosevelt* is reported to have made a ranking of the ten slogans listed below for "author's intelligence." Mr. Roosevelt reportedly estimated the amount of intelligence each slogan represented on the part of its author. This intelligence ranking is reproduced below.

You are asked to rank the same slogans for several other characteristics:

I. *Compellingness to Action.* Rank this set of 10 slogans in the order in which you think they can *arouse other people* into activity or action. Place the number 1 beside the slogan you think most activating or compelling. 2 alongside the next most compelling, 3 next, and so on down to the slogan you think least compelling, which should receive the rank of 10.

II. *Social Significance.* Next rank the slogans for their *social significance*, i.e., in the order of their importance in the current problems of 20th century U.S.A.

III. *Personal Inspiration.* Now rank the slogans in the order in which they could or do *inspire you* to action.

IV. *Approval.* Lastly, rank the slogans in the order in which you *approve* of the sentiment expressed. That is, rank them in the order in which you believe each expresses a *correct idea*, one of which you approve.

Slogan	*Characteristic*				
	Intelligence (Roos.)	I	II	III	IV
A. GIVE ME LIBERTY OR GIVE ME DEATH! . . .	9				
B. AMERICA FIRST!	2				
C. NO PEACE WITHOUT HONOR!	4				
D. BALANCE THE BUDGET!	5				
E. UNITED WE STAND, DIVIDED WE FALL! . . .	10				
F. PREPAREDNESS FOR PEACE!	6				
G. SHARE THE WEALTH!	3				
H. WORKERS OF THE WORLD, UNITE!	7				
I. DOWN WITH ALL IMPERIALIST WARS!	8				
J. AMERICA FOR AMERICANS!	1				
POLITICAL PARTY PREFERENCE [a]					

[a] Subjects could sign their names if they wished.

ing standard (−1.00) also carrying the authority of ex-President Hoover. A sample test sheet for the four Experimental groups is presented.

The technique used may be summarized in the following terms: Two groups of subjects (Experimental Groups *A* and *C*) received suggestions presumably in consonance with their own notions, but in one case (Group *A*) carrying the authority of an admired and respected popular leader, in the other case (Group *C*), carrying the authority of an unpopular figure. Two other groups of subjects (Groups *B* and *D*) received suggestions presumably in conflict with their own opinions, but in one case the suggestions carried the authority of the respected leader (Group *B*); in the other case, it carried the authority of the political opposition (Group *D*). There were 145 subjects in the Control group, and approximately 90 subjects in each of the four Experimental groups.

Each subject in the Experimental groups was asked at the conclusion of

[19] This represents the test sheet of Group *B*: Roosevelt, −1.00, Negative Standard.

SUMMARY TABLE OF PROCEDURE

Date	N	Group or individual	Condition
Sept., '38	145	Group: Control I	Control; no standard presented
Dec., '38	106	Group: Group *A*	Roosevelt, +1.00, Positive standard
Dec., '38	87	Group: Group *B*	Roosevelt, −1.00. (Data lost before complete calculations.) Negative standard
Dec., '38	97	Group: Group *C*	Hoover, +1.00, Positive standard
Dec., '38	84	Group: Group *D*	Hoover, −1.00, Negative standard
Sept., '39	93	Group: Control II	Control; no standard presented
Dec., '39	91	Group: Group *B'*	Roosevelt, −1.00, Negative standard
Dec., '39	55	Group: Control-Repeat	No standard presented, repeat rankings requested
Dec., '38–Dec., '39	20	Individual Communists from Control I	Browder, −0.50, Negative standard
Dec., '38–Jan., '40	20	Individual Democrats from Control I and Control II	Roosevelt, −1.00, Negative standard

his rankings to answer the following questions in writing: 1. "What did you think of Mr. Roosevelt's (Hoover's) ranking?" "Did you agree?" "disagree?" "Why?" 2. "Do you think you were influenced by Mr. Roosevelt's (Hoover's) ranking?" 3. "Were any of the slogans ambiguous?" Or (alternative form of this question): "Which of the slogans did you find it hardest to judge?" 4. "Any other comments?"

In addition to these four Experimental groups, 55 subjects of the Control group were re-tested with the same set of slogans ranked by them two or three months previously. This group is known as the Control-Repeat group, and its rankings serve the obvious need for a check on the stability of judgments when no "influences" are present.

RESULTS

1. Treatment of Data. As in the Control group, mean rankings of each slogan for each characteristic were calculated both for the total Experimental groups, and by political party subgroups. These mean rankings were placed in rank-order and compared with the corresponding mean rankings obtained under Control conditions. Thus, the mean rankings made by Democrats when no standard was present served as Control for the rankings made by Democrats under Experimental conditions. Spearman rank-difference correlations were found to be the most convenient and economical measure of the amount of difference between Control and Experimental conditions. The higher the correlation, of course, the less the shift of rankings under Experimental conditions.

The political subgroups used were as follows: Democrats, who were usually a slight plurality of the total group; Nonpartisans, those who either gave no political party preference or answered the question with the word "none"; and a group of "radicals," composed of American Labor Party, Socialist, and Communist adherents.[20]

2. Shifts in Ranking under the Influence of Political Authority. A comparison of mean rankings obtained from Groups

[20] Legitimate objection may be raised to these groupings. For example, "Democrats" probably (to judge from inspection of their rankings) comprised "New Deal" adherents and "old-guard"

A, *B*, *C*, and *D* with the mean rankings made by the Control groups shows clearly that *under all experimental conditions mean rankings remain substantially unchanged!* All the correlations between Control and Experimental rankings are positive and most of them are very high. (The higher the correlations, it will be remembered, the greater the similarity between the two sets of judgments.) The average correlation is +.78.

A second result is the fact that both "positive" suggestions, whether from Roosevelt or Hoover, show less resulting change than both "negative" suggestions. The lowest set of correlations, i.e., the greatest amount of change in mean ranking, is obtained when the "negative" standard is ascribed to Roosevelt. This difference, however, between the agreement obtained under Roosevelt −1.00 conditions, and the agreement obtained under Roosevelt +1.00 conditions is small, and is far outweighed by the general tendency of all experimental groups to agree with the control ranking.

3. **Shifts in Ranking, by Political Party Grouping.** Again, as in the case of the total groups, the most striking tendency in the data is the relative stability of the rankings. The least change is found in the "radical" group, the greatest change among the "liberals." As in the case of the total groups, the two "negative" suggestions cause somewhat more shifting than the two "positive" standards.

Two most important facts emerge from a review of the results presented thus far: (*a*) The arbitrary standards or suggestions, whether "positive" or "negative," whether sanctioned by a popular or an unpopular political figure, have had much less effect upon the political judgments of our subjects than a naïve acceptance of the psychological literature on "prestige" suggestion would have led us to expect. These political judgments were not altered to the extent that Sherif's or Lorge's experiments encountered. On the contrary, standards in conflict with their own were actually rejected by our subjects. (*b*) "Radicals" seemed less susceptible to such shifts of ranking as did occur; "liberals" were most affected, particularly by a "negative" suggestion from Roosevelt. The difference between these political groups was small, however—a trend rather than a distinct difference.

How are these results to be explained? What are the dynamics of shifts in judgment when they do occur? What is the explanation for such differences in amount of shift between "radicals" and "liberals" as we did find?

Analysis of Individual Responses

It was to throw light on these problems that analysis of individual responses was undertaken. Let us consider, first, some typical answers to the simple questions asked of all the subjects who participated in the group experiments. For the majority of subjects who received a test sheet containing Roosevelt's "negative" ranking (Group *B*), this ranking was in some measure contrary to their own notions. To these subjects, Mr. Roosevelt's performance was decidedly mystifying. They disagreed with his ranking, thought he was "mixed," or that he "should not have attempted to rank the slogans for 'author's intelligence,'" or that he was "inconsistent." A great many subjects tried to find a reason for the mystery. Surveying the subjects' attempts to make sense out of the queer

adherents. Further, the grouping of ALP'ers together with Socialists and Communists would certainly be indefensible if completely homogeneous groups of subjects were necessary for these experiments. The groupings were arranged for two reasons: to increase the number of cases in each group; and to distinguish between "liberals," i.e., Democrats, who believe in the maintenance of capitalism, and "radicals," i.e., Communists, Socialists and ALP'ers, who believe that capital and labor have opposing interests.

opinions of their respected leader, one is impressed by the tremendous wealth of varied meaning which these slogans can have. Following are some direct quotations from the answers to questions: [21]

Dem., Roos. −1.00. "Roosevelt must have meant a bad, antisocial kind of intelligence when he ranked *America for Americans* first."

Still another subject makes the same point very neatly when he writes:

A.L.P., Roos. −1.00. "Mr. Roosevelt's rankings of the slogans was intelligent since he merely considered the intelligence of the author in putting across a point (I think) and not the intelligence of the point put across."

Another subject solves the problem by supposing that Roosevelt was trying to be "objective":

A.L.P., Roos. −1.00. "Roosevelt's ranking shows remarkable objectivity and ability to look at things impersonally. I disagree with it."

Only rarely does one encounter a complete expression of blind faith such as this subject displays:

Dem., Roos. −100. "I think his rankings influenced mine because I, like so many others, have also adopted (his) qualities of faith, hope and courage for the piloting of the nation through the most serious and economic (sic!) history."

A rather amusing solution of the problem comes from this subject who writes:

A.L.P., Roos. −1.00. "Roosevelt's ranking seems to me to be slightly off. Perhaps it was before he became social-conscious."

A most striking tendency running through the answers was the subjects' implicit or sometimes explicit assumption that there was a *right answer*, which many of them believed Roosevelt had missed, either wholly or in part. For others, the discrepancy between their own judgment and Roosevelt's could be explained by the possibility that there were really *two right answers*, depending on the point of view from which the slogans were judged. Thus, for one subject, Roosevelt "failed to distinguish between demagogy and truth," while for another, Roosevelt deliberately set out to judge demagogy—"the slogans were demagogically clever, but a stupid boor could also compose them." That Roosevelt's ranking was for the most part thought to be wrong is evidenced by the relative stability of the rankings even in the Democratic group. That sometimes the subject could see how Roosevelt might be correct (if Roosevelt meant to rank demagogy, or perhaps because he knew people better than the subject, or because he was thinking of something else than the subject) and how, consequently, another ranking of the slogans might be correct, is reflected in the shifts which did occur. The "prestige" of Roosevelt operates here, but only indirectly, only in the sense that the same subject will be more likely (and with good reason!) to consider, reconsider and reinterpret the strange ranking of Roosevelt than the strange ranking of John Doe.

The same general principles emerge when we survey the answers to questions obtained from the group operating under a positive standard with Roosevelt's sanction. In this case, the great majority of our subjects agreed with Roosevelt's ranking, a fact which is apparent, of course, in the statistical results. Several protocols are illuminating with respect to the nature of this agreement and the "influence" of it.

Dem., Roos. +1.00. "It seems to me that Mr. Roosevelt's rankings are fairly intelli-

[21] The questions were answered *after* rankings had been made. No hint was given that they would be asked until all subjects had signified that they had completed their rankings. The back of the test sheet was used by the subjects in recording their answers, but no changes in ranking were permitted.

gent on the whole. Perhaps I am influenced by Mr. Roosevelt's ratings since I usually agree with his policies; however, his rating shows good common sense, therefore I see no reason not to be influenced by his ratings."

Dem., Roos. +1.00. "Generally I approve of Mr. Roosevelt's ranking. I confess, however, to be otherwise prejudiced in favor of Mr. Roosevelt, but it is because I have so often agreed with and admired him. . . . I don't believe I was influenced, since I didn't refer to Mr. Roosevelt's rankings while making my own, but had I looked, I believe I should have brought myself around to his way of thinking."

A.L.P., Roos. +1.00. ". . . the fact that Mr. Roosevelt ranked them in a certain order served to strengthen my rankings if they did agree with his."

There were, of course, some disagreements, but again accompanied by an attempt to find a reasonable answer to the problem created by an unexpected difference of opinion. So one subject writes:

Dem., Roos. +1.00. "I know his informal discussions are just means of obtaining the public's reactions to varying topics."

Nor was the process of judging any different when Mr. Hoover was the authority in the situation. The majority of the group who were presented with a standard correlating positively with their own, agreed with Mr. Hoover's ranking. This included the Communists as well as other left-wing subjects. Some subjects attempted to find a solution for the problem of an unexpected agreement between themselves and Mr. Hoover. Thus one subject writes:

Soc., Hoov. +1.00. "I agree mostly. I think Mr. Hoover's ranking is that of a typical hypocrite and liar. I'm sure he wouldn't want to stand united with people like me. Neither is he against *all* imperialist wars!"

Another subject writes:

Dem., Hoov. +1.00. "Strangely enough, I found myself in agreement with several of Mr. Hoover's rankings. I was really surprised, and in some cases quite pleased with our Republican ex-President. . . . I expected Mr. Hoover to choose *Give me liberty or give me death* at the beginning. To me it is a hand-tailored slogan for chubby old Herb."

Only an occasional subject indicated that Mr. Hoover's name might be a prejudicing factor, and one of the subjects, admitting the prejudice, still agreed with Mr. Hoover. As this subject put it:

Dem., Hoov. +1.00. "I have a strong prejudice against the overstuffed baloney who was our last President, so my rating would uncontrollably be opposed to his. Still, in this case, I agree with him."

Hoover's negatively correlating standard evoked general disagreement, even from the few lonely Republicans who sometimes found their way into our groups. As for the possible influence which Mr. Hoover's rankings might have had, one subject put it forcefully, when he wrote:

Nonpart., Hoov. −1.00. "Mr. Hoover could influence the American Manufacturer's Association, and I'm not a member."

An Individual Experiment

The clearest insight into the nature of the subject's responses to "prestige suggestion" in this experiment, was obtained, however, from a modest program of individual experimentation in progress during the entire period of group experiments. The same technique was used as that described for the Experimental groups, but under conditions of *individual* rather than *group* experimentation. A few Communists in the Control groups selected at random were recalled individually about two months after they had made their initial ranking, and presented with a test sheet containing a ranking of the slogans for "author's intelligence" purporting to have been made by Earl Browder, General Secretary of the Communist Party of the U. S. A. This ranking was, in each case, correlated

−0.50 with the ranking which each subject had actually made in the Control series. Thus the subject, in this procedure, was confronted with a partial reversal of his own actual ranking, carrying the authority of his acknowledged political leader. The subject's task was, as in the group experiment, to rank the remaining slogans. An identical procedure was likewise followed with a small number of Democrats, who were given a conflicting standard (−1.00) purporting to be President Roosevelt's.

At the conclusion of the rankings, a fairly extensive interview was obtained with each subject. The following questions were asked during the course of the interview: "Have your rankings changed since last time?" "Do you remember the rankings you made last time?" "Which?" "What did you think of Mr. Browder's (Roosevelt's) ranking?" "Do you think you were influenced by it?" "Were any slogans ambiguous?" "Which?"

When these questions had been answered, the experimenter produced the subject's original rankings (Control) and went over both sets of rankings with the subject, noting changes and asking for explanations.

Most of the Communists refused to believe that the given ranking correctly represented Mr. Browder's complete opinions. Some few subjects suspected a hoax. Thus one girl said, indignantly, "Do you really expect me to believe that these are Browder's rankings?" The majority of subjects were more naïve, but attempted to explain the discrepancy reasonably. So, one subject said: "If Mr. Browder said that, he must have been misquoted by the newspapermen who reported him." Or, as another subject phrased it: "Browder should not have made rankings for intelligence. The intelligence of the author is irrelevant to the slogan."

Still another phrasing runs: "I can't account for these rankings at all. Unless he had a different conception entirely. . . ." Or, "He did it, of course, in answer to a stupid question." "I don't think he really said this, but maybe he was thinking of slogans clever enough to confuse the people."

Certain shifts of ranking, of course, occurred. But the way in which they occurred is the crucial point. What happened was a reinterpretation of the slogan's meaning so that another judgment of it was possible—as correct, in the subject's eyes, as the first judgment. The authoritative standard placed the slogan in a new context for the subject—and it became possible for him to reorganize his entire series of rankings. For example, the slogan *America first!* was ranked by one Communist very low in social significance and approval (i.e., 9, 10) on the first test. Browder's ranking was, of course, much higher. On re-test, the subject changed the ranking with the following explanation: Formerly the slogan had meant a "jingoistic phrase." Now it meant that "America is our primary problem," and it was therefore ranked high. Its still possible chauvinistic implications, however, kept the slogan ranked low in inspiration. As this subject put it, "the slogans gathered a new meaning from a reappraisal," although the subject did think it "unjust to present them to me out of context."

There were numerous other instances of the same phenomenon: *Balance the budget!* had meant, on the first test, "abolish relief," and was ranked low. Now it meant: "lower war appropriations, [higher] undistributed surplus taxes, more relief money—in short, balance the human budget." "This slogan," said the subject, "might mean what I want it to mean."

No peace without honor! recalled for one subject the propaganda used by certain groups before our entrance into the First World War. On re-test (Nov. 1938), the subject said: "People are beginning to feel that way since Munich." So the slogan *Preparedness for peace!* was ranked

low by several subjects in their first judgment. On the second occasion, it was ranked higher, not simply because Earl Browder said so, but because Browder's rankings set the subject to wondering whether the slogan could not mean "prepare against Fascist aggression." The important point to emphasize here is that in view of the ambiguous nature of a slogan without context, *both interpretations of it were equally possible.* In other words, the subject did not blindly change his mind. On the contrary, the context, the point of view from which the slogans were viewed, changed—actually the slogan changed its very meaning—so that, in consequence, another judgment of it was made. Mr. Browder's influence was in the nature of a doubt-producing agency—doubt whether the subject's interpretation of the slogan was the only one possible. "Browder's statement threw a different light on the issue," one subject said. And since the doubt did arise, and since presumably Mr. Browder might reasonably be supposed in certain instances to judge better, and since, *as a result, the subject saw the possibility of another interpretation,* the rankings sometimes were shifted.

The behavior of the Democrats under Roosevelt's contrary "influence" shows the same principles. In their case, however, more of the subjects seemed to find more of the slogans ambiguous. We quote the protocol of one subject as an example of the type of response frequently found among Democrats: "In fact I felt it was difficult to rank all the slogans. They're so general, not concrete enough and influenced greatly, I think, by one's social and political and economic background. I found I wasn't too sure of anything."

It may also be noted that this subject changed his judgment of the slogan *America for Americans!* an occurrence never found among Communists. He described this slogan as most unclear, a description in which he was joined by five of his fellow-Democrats. Whereas among the Communists the possibilities for reinterpretation lay mainly in slogans like *Preparedness for peace!* and *No peace without honor!*, for the Democrats, all the slogans, including *America for Americans!* sometimes became ambiguous under the influence of the negative standards. The trend of the difference between Communists and Democrats cannot be accounted for, then, by supposing that Democrats are more readily and blindly susceptible to the effects of "prestige suggestion." Rather, the difference between Communists and Democrats is simply a difference in the frequency with which the slogans could change their meaning. This quantitative difference seemed to be a reflection of the clarity of the subjects' opinions. The Communists seemed to know something more of the authorship and contemporary uses to which the slogans were put.

Discussion of Results

The results of this experiment have offered confirmation of the hypothesis put forward at the beginning of this paper. Let us recapitulate our findings by fitting them into a generalized, schematic account of the process by which our subjects' judgments changed in the presence of an authoritative standard.

Opinions usually have certain ramifications into other beliefs. Beliefs are not held in isolation, but are organized into interdependent patterns, frequently extending over wide areas of ideas. My opinion of a political event is part of a widely ramifying pattern of beliefs concerning other political, social and economic events. The matrix of beliefs from which a single opinion stems, or, in other words, the background of understanding from which a belief springs, may be called the "frame of reference" of that opinion.[22] (Frequently, as in the case of these

[22] H. J. Wegrocki, *op. cit.*

experiments, the single opinion is extracted from the matrix of allied beliefs to form a very artificial kind of unit.)

Now the frame of reference in which a belief is held may be clear and unequivocal—the body of beliefs, in other words, fully understood—or it may be hazy and uncertain. For many of our subjects, the opinions requested of them by our technique were of necessity derived from a most ambiguous background of understanding.

The "prestige" of a suggestion functions to provide context for the new material which confronts the individual. The same statement made by Roosevelt and Hoover obviously meant different things to our subjects, from what they knew of the philosophies and actions of both men. It is clear that the name "Roosevelt" attached to a statement did not ordinarily create a dimming of the Democrats' "critical faculties," a sense of submission of his beliefs to Roosevelt's, since conflicting suggestions coming from Roosevelt were rejected by most of our subjects.

On the contrary, the name "Roosevelt" attached to a statement often endowed it, by a highly rational process, with a meaning congruent with the known background of Roosevelt's history. This process is beautifully illustrated in our results. *Roosevelt's "negative" ranking was actually made to mean (by many of our subjects) something congruent with Roosevelt's known views.* Or else, the subjects wrote and said, Roosevelt must have been thinking of "the intelligence of the author putting across a point, and not the intelligence of the point put across."

Confronted with Roosevelt's "suggestion," the individual whose general political attitude was like Roosevelt's was apt to treat the suggestion with respect. The same individual would not be as ready to give respect to an identical statement from Hoover, not simply because Roosevelt had more "prestige" than Hoover, but because the known background of Hoover's career created a quite different context from which the statement might derive a different meaning. In both cases, however, the *content* of the statement was more important than its *authorship:* Both "negative" suggestions, whether Roosevelt's or Hoover's, operated in similar ways in our experiments, and the results from both "positive" suggestions were also alike.

If the suggestion (the meaning of which depends both on actual content and authorship) can, as it did in our experiments, cause a shifting of the particular opinion from one context to another, cause a reorganization of the subject's understanding, a re-patterning of his beliefs, and *if the new pattern thus created seems at least as clear and correct as the old, then a "change of opinion" may take place, or rather a new opinion may evolve.* Browder's ranking of the slogan, *No peace without honor!*, seemed as good to our Communist subject as her own, once the slogan was interpreted as referring to the Munich Treaty of 1938. *If the new pattern seems more correct than the old, a new opinion will almost certainly result.*

Possibilities for the reorganization of beliefs depend upon two conditions: (*a*) The first of these is the objective nature of the material which is being judged—its evident truth or falsity, clarity or unclarity. Some of our opinions, the truth of which has been proven by varieties of experience, cannot be "changed" by suggestions. Objectively unclear and doubtful "facts," on the other hand, can readily be seen in a new light. (*b*) The second condition upon which the possibility of reorganization of beliefs rests is the nature of the frame of reference from which the subject views the situation. Certain beliefs are tangential and of secondary importance in the frame of reference of a particular individual; others, central or focal. (Two individ-

uals may actually hold the same beliefs, but in such different frames of reference that the similarity of their ideas is only verbal.) Beliefs which are crucial or focal points in our understanding of events, axial points of our frames of reference will not easily be changed by suggestion. A Communist, for example, will most probably not change his belief that there are classes in a capitalist society, if Marx, Engels, Lenin, and Stalin could all be made to "suggest" the contrary. Peripheral beliefs, which can be held as readily in one frame of reference as another, can be readily re-patterned. These were the beliefs which showed the shifts of ranking obtained in our experiments.

SUMMARY

1. All our subjects kept their rankings of political slogans relatively unchanged under the influence of either conflicting or agreeing standards.

2. Conflicting standards were "rejected" whether their imputed source was a popular or unpopular political figure.

3. Differences in shift among the political subgroups were small; "radicals" shifted their judgments least, "liberals," most.

4. Attempts were made by our subjects to provide for themselves reasonable explanations for the conflicting suggestions purporting to be Roosevelt's and for the "positive" suggestions purporting to be Hoover's. In other words, the authoritativeness of a standard or suggestion, i.e., its effectiveness, requires, as a minimum condition, the presence of some point of integration between it and the subject's opinions.

5. The "prestige" of a suggestion, the source of it, functioned to provide context for the statement. It was often in terms of this context that the statement had its meaning.

6. When it was effective, the suggestion usually operated to redefine an ambiguous situation. The subjects did not simply "change their minds." Rather, the slogans they were judging appeared in a new light, acquired a new meaning, and thus demanded a new judgment.

3.

IMITATION AND INDEPENDENT LEARNING

By Neal E. Miller and John Dollard

According to the preceding analysis, one of the important variables determining whether or not a stage of imitative behavior will facilitate the learning of independent behavior is the degree to which the subject is exposed to the relevant environmental cues during imitative behavior. Thus, the more the act of imitation helps to direct the imitator's attention toward those of the environmental cues which are relevant and so makes them distinctive while the correct response is being performed, the more likely the imitator is to become able to perform independently, in the absence of the model. And conversely, the more the act of imitation directs the imitator's attention away from the relevant environmental cues, the less likely the imitator is to learn the cue-response connections which will enable him to perform independently, in the absence of the leader. The purpose of the following experiment was to test these predictions.

From Neal E. Miller and John Dollard, *Social Learning and Imitation* (New Haven: Yale University Press, 1941). Reprinted by permission of the authors and the publisher.

In order to test for the effect of directing attention toward or away from relevant cues in the environment, two situations were compared. One of these situations was set up so that the subjects who imitated were vividly exposed to the relevant cue, whereas the subjects who did not imitate were not exposed to this cue. After responding in this situation, one would expect the imitators to have progressed further toward learning to perform the correct response independently than the nonimitators. The second situation, employed for control comparison, was the same as the first in every respect except that the response of imitation did not expose the subjects to the relevant environmental cue, while the response of nonimitation did vividly expose the subjects to this cue. After trials in this situation, one would expect different results: The subjects who had not imitated should have progressed further toward learning how to perform the correct response independently. Since the degree to which imitation directs the subject's attention toward the relevant environmental cue is the only factor in which these two conditions are different, positive results would confirm the theoretical expectation that this factor is important.

The subjects used in this experiment were the same forty first-grade students who had just finished Experiment 6. Half of them had learned to imitate and half of them had learned to nonimitate in going to one of two boxes for candy. In the present experiment, the imitators and nonimitators were each divided into two subgroups. For purposes of reference, the first pair of these subgroups, ten imitators and ten nonimitators, to be used in the first situation, may be designated as Section I, and the second pair of subgroups, ten imitators and ten nonimitators, to be used in the second situation, may be designated as Section II.

The physical setup of this experiment was, in general, quite similar to that employed in Experiment 5. The starting point of the subjects was marked on the floor. Ten feet from the starting point and ten feet apart two chairs were placed on the corners of the base of an imaginary equilateral triangle, of which the starting point was the apex. On each chair was a box with a hinged lid. These were similar in every respect to those employed in Experiment 5, except that each had a quarter-inch hole drilled through the center of the lid. This hole was one and one half inches from the front of the lid and slanted down toward the center of the back at a forty-five-degree angle. Into either of the boxes could be placed a small portable flashlight lantern.[1]

The problem for the subjects in Section I was to learn that candy was always to be found in the box containing the light. The flashlight lantern was placed in the bottom of the front of the box with its lens facing up. The candy was placed directly on top of the lens. The lid was closed, and a small beam of light was unobtrusively visible shining out through the quarter-inch hole in the top as the relevant environmental cue.

On the first trial, the leader was given his turn first. He always went to the box containing the light and the candy. When opening it, he was careful to stand so that the additional light, which otherwise would have been visible with the lid of the box up, was shielded from the subject. After the leader had his turn, the dependent subject was given his turn. On these turns, each imitator, because of his previous training, went to the same box as the leader. Upon lifting the lid of the box, each imitator was vividly exposed to the cue of the light while reaching for the candy. The nonimitators, on

[1] A two-cell flashlight lantern with a lens two and one-eighth inches in diameter; trade name, Niagara Junior Guide No. 12.

the other hand, went to the other box. Upon lifting its lid, they were not exposed to the light and did not get candy. For both groups of subjects, the first trial contained only one turn. This was necessary in order to prevent the nonimitators from correcting their response and being exposed, in the same way as the imitators, to the light as a very distinctive and vivid cue.

On the second trial, the light and candy were shifted to the box in the other position in order to determine what independent learning had occurred as a result of the first trial. The subjects were given this second trial without any leader.

Because the light was the only cue that was shifted when the reward was shifted, the presence of light in one box and absence of light in the other box was the relevant cue. Other cues, such as the position of the boxes, were irrelevant in that they were not correlated with the reward. In this case, the presence of the light in the correct box was more striking and distinctive as a cue than the absence of a light in the other box because lights are not to be found in most boxes of this kind, and because the difference in illumination between the light in the one box and its background was greater than the difference in illumination between the shadow in the other box and its background.[2]

Since the response of the imitators, opening the lid of the correct box, vividly exposed them to the light as a distinctive relevant cue at just the moment that they were reaching for the candy, one would expect the goal response of reaching for the candy to be attached to this cue. On the test trial, one would expect this response to generalize to the situation in which only a little light was shining through the hole in the top of the box. This generalization would be expected to be facilitated by previous experiences in which feeble lights seeping out through holes have been associated with bright lights behind obstacles such as doors and by the complex verbal responses learned during such experiences. Therefore, on this test trial, one would expect the imitators, who were vividly exposed to the correct cue, the light, as a result of having followed the leader, to be more likely to respond to the light in the absence of the leader and hence to make a correct choice. Conversely, one would expect the nonimitators, who, as a result of not following the leader, had not been vividly exposed to the light as the correct cue, to be less likely to succeed.

In order to demonstrate that any such success was the result of being exposed to the correct cue, Section II was used as a control group. The problem for these subjects was to learn that candy was always to be found in the box opposite to the one containing the light. In all other respects the procedure was the same. On the first trial, the leader had his turn first. He always went to the box opposite to the one containing the light. After he had had his turn of going to the correct box and getting his candy, the dependent subject was given his turn. On these turns, the imitators, because of their previous training, went to the same box as the leader. Upon lifting the lid of the box they got candy but were not exposed to the relevant cue, the light. The nonimitators on the other hand, because of their previously learned tendency, went to the opposite box from the leader. This trial was, of course, an error. But upon lifting the lid of this box they were vividly exposed to the relevant cue, the light. Thus the extinction resulting from nonreward was attached to the response of going toward a light. Since the subjects were already sophisticated and knew that eliminating an error was a step toward candy, it is probable that,

[2] Contrast with background is a factor which has been emphasized by Gestalt psychologists.

in addition to the effects of experimental extinction, the effects of turning away from the light were strengthened by the acquired reward value of eliminating an error.

On the second trial, the light was shifted to the other box. The problem still was to find the candy, which was in the box without the light. In order to test what independent learning had occurred as a result of the first trial, the subjects were given a second trial without a leader. On this trial, one would expect the nonimitators, who had been vividly exposed to the relevant cue while turning away from the box not containing the candy, to tend to respond to this relevant cue again. The imitators, not having been exposed to the relevant cue, would be expected to respond on the basis of position or other irrelevant cues which would lead them to make errors. Thus the nonimitators should make more correct responses on the trial without a leader than would the imitators.

The results confirm the deductions. When the conditions were arranged so that imitation facilitated and nonimitation hindered the subject from exposing himself to the relevant cue, the imitators did better than the nonimitators in the test for independent learning. On the other hand, when the conditions were arranged so that imitation hindered and nonimitation facilitated the subject in exposing himself to the relevant cue, the imitators did more poorly than the nonimitators in the test for independent learning. Under the first set of conditions, 90 percent of the imitators and only 40 percent of the nonimitators made correct responses when tested for independent learning. A difference of this magnitude would be expected by chance only approximately one time in a hundred. Under the second conditions, 30 percent of the imitators and 100 percent of the nonimitators made correct responses when tested for independent learning. A difference of this magnitude would be expected by chance less than one time in a thousand. Thus, it is conclusively demonstrated that the degree to which responses of imitation or nonimitation facilitate or hinder exposure to the relevant cue is a crucial factor in determining the extent to which they will facilitate or hinder the course of learning to respond independently.

4.

VARIATIONS IN SYMPATHETIC BEHAVIOR ON THE PLAYGROUND *By Lois Barclay Murphy*

Our culture produces a variety of sympathetic responses among children in the nursery school; in any group these will be distributed among individual children in different proportions, depending upon characteristics of the group structure and of the children as individuals. In analyzing group structure, we found that children who received many sympathetic responses also received in certain cases many unsympathetic ones; and in analyzing individual differences, we found that children who gave large numbers of sympathetic responses frequently also gave large numbers of unsympathetic responses. Furthermore, ranks on sympathetic responses differed somewhat from one measure to another. We may grant

From Lois B. Murphy, *Social Behavior and Child Personality* (New York: Columbia University Press, 1937). Copyright, 1937, by Columbia University Press. Reprinted by permission of the author and the publisher.

the limitations of the measure directly, and the fact that these limitations are probably responsible for part of this difference. Furthermore, children who had high scores in sympathy records sometimes showed considerable unsympathetic behavior and frequently had high scores in aggression. The agreement of raters with one another that a child is outstandingly sympathetic does not prove that a child who is found to be outstandingly sympathetic will actually be sympathetic on every occasion that sympathy is called for, or even on *most* occasions that sympathy is called for; nor does the agreement of combined ratings with objective observational records; nor the internal consistency of a large series of items of sympathetic behavior. A child may be extremely sympathetic one day in one group, and very aggressive the next day with a different combination of children. Our records show a wide variety of combinations of behavior—some children (Janet, Kenneth, Heidi) were relatively free from aggression of any sort, while others (Alfred, Julius, Patrick, Reinhardt, Philomena) were not merely aggressive but mean on occasion. We are suggesting here that while the statistical material presented in the last two chapters leads to clear conclusions so long as we are willing to work on a superficial descriptive level, it also raises important questions which cannot be answered by the use of statistical procedures now available. Attempting to answer these questions by further analysis of relationships in "qualitative" terms may help to clarify the problem. The concept, "analysis of relationships," as used from now on, will refer not to statistical measurement of association of two variables, but to observation of the coexistence of two variables, or a sequential relation between two or more variables, in described situations.

In a culture so complex as this, similar behavior may appear with quite different meanings, depending upon the total orientation of the child. The varieties of meaning, which apparently simple overt items of behavior may have to a child, can be seen from a brief analysis of contexts of behavior. For example, "stares at crying child" occurs under the following circumstances:

(1) A child busy at work hears a cry and looks up, stares a moment, then continues his work without further attention;

(2) A child at work hears a cry, looks up, stares, returns to work, stares again, with apparently definite interest in the crying child;

(3) A child who is unoccupied, and is merely standing near the wall, stares at the rest of the children; his attention may be caught by the most vivid stimulus, which might be a crying child; or, since he is somewhat uncomfortable himself, his "threshold may be lowered" for response to crying, so that the response is more prolonged;

(4) A child who is either occupied or unoccupied may stare, at the first sound of a cry, and this may be followed by a further verbal, individual, or active response to the crying child;

(5) A child who ordinarily ignores another child's cry completely, stares if the cry comes from a new child, or a familiar child in a new situation, or if he suspects that something similar may happen to himself;

(6) The stare is sometimes accompanied by an anxious expression, if the child who is crying is in a friendly relation; by a sneer or look of secret triumph, if the child is in a competitive relation; by a look of blank curiosity, if the child is a stranger; by a look of puzzled wondering, when the watcher appears not to understand the situation he is watching.

In other words, a stare appears in a context of sympathy or curiosity; it is sometimes the only overt sign of intense inner feeling, or the predecessor of energetic, active response; or sometimes it is merely a casual reaction of the mo-

ment. The criteria by which all these possibilities are judged are too subtle to be susceptible of "objective" measurement in our present state of research in this field. An observer, who has been with a group of children for a considerable length of time, will have definite insight regarding these various kinds of "stares," and will be aware of differences in the context of an item of response of this sort, which someone unacquainted with the group would not perceive.

Similarly, the "defense of a child who is attacked" occurs in a variety of emotional backgrounds:

(1) A child who is seldom spontaneously aggressive occasionally "punishes" a child attacking another child (for instance, Janet, who had a consistently low score in aggressiveness by all measurements, pounded Lucinda when she pushed Davis off a wagon);

(2) A child who seldom attacks another spontaneously makes a *habit* of hitting or "spanking" children who have attacked another child;

(3) A child who is frequently aggressive finds defense the most natural method of expressing sympathy.

In cases like the first, a child who avoids physical combat in general (as children sensitive to pain and physical contact frequently do) sometimes resorts to it under special provocation, which may be either social in direction or self-defensive. In the second instance, a child may have a considerable tendency toward aggression, which is effectively restrained by home taboos so far as spontaneous attack is concerned; sometimes in these situations, the opportunity for physical punishment, as a legitimate outlet of aggression, comes as a release from severe repression. In cases like the third, where a child's thresholds are low for any aggression response, both spontaneous hits and defenses of others come easily, and probably have little difference in value for the children.

"Tells teacher that a child is crying" is also bound up with a varied group of contexts:

(1) A child who talks more easily than he manipulates the world may habitually use this method of helping, for lack of other resources;

(2) A child who is dependent on adults and is inhibited in the nursery-school situation from talking to them, may take advantage of an opportunity (which is afforded by another child's need or distress) to talk to the teacher without provoking disapproval;

(3) A child who usually responds to a distress situation in a practical way, substitutes verbal responses of this sort when he is baffled by a different situation.

Here again sympathy is frequently involved in a tangle of social and self motives; only long experience with the child, in a variety of situations, could permit interpretation of the total significance of an item of behavior such as one of these.

In the varieties of significance attached to similar overt behaviors just discussed, habitual attitudes of different children must be understood before interpretation is possible. A temporary context of feeling is often important, also, to explain behavior that is rare for the individual or for the group. It was very unusual in any of the nursery-school groups for children to cry out loud when another child cried. But this did happen occasionally, when a child's readiness was great because of newness in the group or disturbance of some other sort.

Jan. 29, 1934

Reinhardt had been knocked down by Patrick. He ran to a teacher, sobbing heavily. Annabelle, a new child in the group, left the swing, went over to Reinhardt and the teacher; as she stood there her face took on a sad expression, her lip quivered, and she burst into tears. The teacher and Reinhardt comforted her and assured her that Reinhardt was all right. Then she went back to play.

While concern with self-needs usually predominated over response to others, there were occasions when a child would stop crying, to pay attention to some other child's claims. Doubtless the strength of appeal of the object competing for attention, and the intensity of the child's emotion, would determine whether or not such a shift would take place. In the following instance, the direction of interest of the group may have been an important factor in the shift.

April 4, 1934

Davis cried in the elevator, not wanting to go with the group to hear music.
Philomena and Beulah (the only ones in the elevator) looked.
Beulah said, "See Philomena's nice new suit."
Philomena approached Beulah and said, "I have a sore finger"; she showed her the finger.
Beulah looked at Philomena's finger.
Davis looked at the finger and stopped crying.

Here the security value of joining in the group by looking with the others at Philomena's finger prevailed over the drive to get attention by crying; or the discomfort Davis himself had suffered lowered his threshold for response to that of Philomena; or the interest value of Philomena's sore finger in itself competed successfully with the attention value of his own plight, just as the attention value of an auto accident may compete successfully with that of hunger in many adults, without necessarily involving much sympathy.

Children like Sturgis and Janet, who were almost invariably sympathetic to other children's wishes and distress so long as no conflict with their own needs was involved, would, however, defend their own play arrangements or property when another child interfered with these. In one incident, two-year-old Joyce showed a desire for a train of blocks with which Sturgis was playing. Joyce was a "baby" who usually got a sympathetic response from most members of the group, and Sturgis was a rather nonaggressive child, who was apt to respond sympathetically if he responded at all. In this instance, however, he is absorbed with the train, and pulls it away from Joyce. The chief respect in which he appears more responsive than a more egocentric child would be in this situation appears when he suggests, "You get another one," instead of hitting her for attempting to take his train. Few adults could do more than Sturgis did in this situation, and when we say he was "usually sympathetic," we mean that he was sympathetic if being so was not too costly.

In the case of Julius and Allen, a sense of guilt for either intentional or unintentional hurt to another child resulted in flight from the situation; in Julius' case this was very unusual, for ordinarily he was first to the rescue.

March 16, 1933

Alfred, Merea, and Marian were in the sand box.
Alfred poured sand on Merea's head, threw sand in Marian's face.
Marian cried.
Alfred looked around, ran off to the block house.
He shut the door to the block house, shutting himself in.
He came out, ran to Marian, looked at her face carefully.
Teacher said, "When sand gets into Marian's eyes, it hurts. Sand is to play with."
Alfred looked and then gently brushed off Marian's face.

Alfred is the little boy whose nurse was so aggressive; evidently he expected sharp attack from an adult as punishment. He first escaped from the scene, then, reassured by the teacher's very mild comment, made recompense afterward.

In certain cases, pressure of the group appeared to be partly responsible for a child's response to the distress of another

child. In one instance, two other children approached to look, after Peter took away Daniel's block; a teacher also watched. It seems likely that Peter's restitution of the block was a response to these elements in the situation, quite as much as to Daniel's screaming protest.

Frustration in an initial friendly approach was frequently followed by aggressiveness among the youngest children. In the following instance, the observer felt that Denison's first approach was genuinely friendly, but when it was balked, he became violent.

May 8, 1934

Joyce was resting.
Denison approached her with his hands out toward her.
He looked at the teacher and said, "Joyce, wake up?"
Teacher said, "She's still resting."
Denison picked up some sand and threw it at Joyce.
Teacher said, "It will get in her eyes."
He kissed Joyce.
Teacher took him away.

This shift from a mild, friendly, or affectionate approach to a sadistic one is rather common, and recognition of this is very important for an understanding of the fundamental ambivalence of aggressive drives. The mother who gets a dog for her son who teases the neighbor's younger boy too much, and the teacher who asks her behavior-problem, spitball firing pupil to take responsibility for the blackboards or the turtles, recognize this double potentiality in what both the mother and the teacher would call a "need for an outlet." Yet it is implicitly ignored when we think and speak in terms of aggressive "traits," as though they were inherently destructive.

It was uncommon, in the case of several children, for a child to persist in the attempt to make a social contact with one child after it had been rejected; usually the child who was seeking response would approach another child. In some cases, however, one method of approach was substituted for another.

May 8, 1934

When resting, Denison pulled Joyce's hand.
She pulled it away.
Denison then patted her back.
Joyce said, "Don't."
The teacher took Joyce to the other mat.

In other cases, and this was particularly characteristic of Julius in Group H, the child seemed perplexed at the rejection, and tried to find out why it had occurred, reiterating his innocence of aggressive intent. On more than one occasion, Julius was found actively hugging a child, usually a smaller one; when he kept on hugging, even after the child begged or cried to be let alone, and the teacher interfered, Julius would say, "But I'm just loving him." It is true that Julius' aggressive loving was frequently lacking in any insight into the feelings of the child he wanted to love, just as is the loving of many adults. But it may be a fair question to ask whether this responsiveness did not provide better soil for the growth of social insight and cooperation than the centripetal self-centered ways of less active children.

One of the most interesting illustrations of the possibility of a quick shift of attitude and expression in reaction to a shift in ego-status, appeared in a sad drama of hurt egos, where Janet's usual consistent friendliness and sympathy turned to aggressive retaliation, after she felt she had been intentionally injured by Heidi, one of her closest friends.

May 24, 1934

Heidi threw a block on Janet's leg (perhaps accidentally).
Janet frowned, then cried.
Heidi laughed.
Lucinda frowned.
Janet said, "Heidi, you hurt me."
Heidi continued to laugh.
Janet said, "How would you like it if I threw that block on your knee, huh, huh?"

Heidi thought Janet was fooling and continued to laugh.
Janet threw Heidi onto the blocks.
Heidi said, "Stop it," and cried.
Janet laughed.
Patrick said, "What's the matter?"
Lucinda looked anxiously in Heidi's face.
Heidi and Janet cried (Janet, sympathetic crying).
Janet tickled Heidi and waved her hands in her face, trying to divert Heidi's attention.
Heidi said, "Stop that."
Lucinda said, "Let's go down the slide."
Janet walked away reluctantly with Lucinda.
Patrick said, "What's the matter, Heidi?"
Heidi said, "Janet pushed me down."
Julius watched, worried.
Seth said, "What's the matter?"
Heidi said, "Janet pushed me down."
Seth said, "Teacher, Heidi got hurt."
Patrick patted Heidi's head and followed her.
Joyce approached and stared.
Patrick said, "Janet, did you push Heidi down, did you, Janet?"
Lucinda said, "Yes, she did."
Janet said, "Well, she hurt me first. She hurt my knee."
Joyce said, "Why you crying, Heidi, why you crying?"
Patrick said, "Get away, Joyce." Then, "Let her alone," and patted Heidi's face and head.
Joyce said, "Why is Heidi crying?"
Lucinda and Joyce watched from far off.
Joyce's nurse wiped Heidi's face.
Julius approached and watched while the nurse wiped her face.
Reinhardt approached with a ball (no attention to crying).
Julius pulled the ball from Reinhardt (Julius wanted it for Heidi?).
Reinhardt pulled.
Heidi said, "It was Reinhardt's, Julius."
Julius released the ball and said, "Why did you throw the blocks at Janet?"
Heidi said, "'Cause I wanted to."
Julius said, "You mustn't."
Heidi said, "Janet knocked me down."
Julius said, "Well, you mustn't."
Heidi ran to Janet and Lucinda, and they continued playing with blocks.

Janet was a child with a very high score on observation and on teachers' ratings for sympathetic behavior. Her aggression scores were low. Heidi was a friend, a gentle and younger child whom she had often protected and helped. Yet in this situation, Heidi's persistent misunderstanding of Janet's physical injury and Janet's resulting hurt feelings were followed by retaliation on Janet's part, and laughter at the injury she had done to Heidi. There is a moment of attempted recompense through a gesture toward distraction of Heidi, which is not carried through when Janet's companion suggests a new activity. Shortly after, in answer to comment, Janet justifies herself on the ground that the initial aggression was Heidi's. The whole situation is resolved when Janet's good feeling is reinstated by other children's acceptance of the basis of her retaliation, and Heidi's ego is comforted after a great deal of attention from Patrick, Seth, Julius, and Joyce, so that Janet, Heidi, and Lucinda finally go off to play together.

In the instances just cited, sympathetic responses, which ordinarily appear in certain situations, are inhibited when the ego of the potentially responsive child is threatened. Variation in the security of the child is, in fact, one of the most important sources of fluctuation in sympathetic response, and results in different shifts from one child to another.[1] For instance, Anthony, a somewhat fearful child, is more sympathetic when he is insecure, and less so when he is secure and happy in his group; Julius is less sympathetic, more aggressive and defensive, when he is insecure, while his normal ratio of responses during a well-adjusted, happy period includes high

[1] Margaret Mead comments that among the cultures she has studied, the Mundugumor are never sympathetic except when they are miserable. This would be true of most personalities organized around ego-values instead of positive social feeling.

sympathetic behavior scores; Arthur is more sympathetic during the early period of his records, when he is insecure, but later, when he develops more aggressive outlets, he becomes more aggressive and less sympathetic than when he was insecure.

The shift from sympathetic to unsympathetic orientation toward one's neighbor is tied up, then, with fundamental patterns of personality of the individual The core of the matter lies in the individual's attitudes of group dependence, as compared with group dominance: the individual who temporarily, or over a long period of time, is in a position of seeking approval of the group he confronts, is apt to have lowered thresholds for sympathetic responses to members of that group; while the individual who is, through dominance or lack of interest, in no such relation to the group, may show no such tendency. The individual who has been relatively sure of his dominance, on the other hand, may only fight harder in self-defense when his security is temporarily or for the first time threatened; a longer period of insecurity might, nevertheless, shift his orientation to one of attempting to win friendly or sympathetic response through giving it.

This formulation suggests an explanation, then, of the apparently opposite tendencies shown by children like Anthony and Julius, one of whom sympathizes more when he is less secure, while the other sympathizes less in this situation. For Anthony was in a position of courting the favor of his group and was more sensitive to their needs, both because of his tendency to project his own anxieties and because of his wish to please them; when his place was more certain, both the projections and the need to be aware of the responses of other children at every point disappeared. Julius, on the other hand, was accepted in his group; the basis of his sympathetic response was simply a generous, undifferentiated responsiveness to others. When his status was threatened, his attention and drive was weighted on the ego side; he fought to regain his dominance, and temporarily appeared more unsympathetic. Even the shifting pattern of Arthur's behavior becomes clear, seen in these terms: during the early period of the observations, Arthur was dependent both on parents and on the group to which he belonged. His own insecurity resulted in low thresholds for concern over others and response to the needs of others. Subsequently, when Arthur became dominant over his younger sister, and acquired aggressive techniques that helped to cope with the rest of the world, he tended to fight his way out, as did Julius when his ego was threatened, by teasing, arguing, or protesting. During the second period, Arthur was generously sympathetic to his sister when she was hurt and he was safe; when he was worried, she was the first target of his aggression. Records made subsequently by other observers showed that Holden, who appeared to be very sympathetic for his age in this group situation, later became extremely aggressive, as he fought for status in another group.

It may be relevant here to discuss a particular kind of ego-expression which appeared conspicuously in certain children in the form of "teasing." Teasing usually consisted of verbal threats or incipient aggressions—gestures of hitting, spanking, punching, and so on, which were intended by the giver to be taken seriously by the receiver, although the giver had no intention of following them through to a point of serious injury. Because the receiver of these aggressions could not claim serious injury, the aggressor felt protected in his annoyances, and the excuse, "I'm only teasing," appeared to be considered by the teasing child an adequate justification of the act.

Prolonged and repeated teasing, however, did not occur among the busier children; children like Holden, Julius, and Heinrich, who were active and ag-

gressive when defense of others or self was called for, and who were interested in the nursery-school equipment and activities, seldom teased. The teasing came from Patrick, Reinhardt, Seth, and Daniel.

The characteristics these children had in common were preference for activities which were not a dependable part of the nursery-school routine, such as listening to music and dancing or singing with music (martial time, in the case of Patrick, Reinhardt, and Daniel); a tendency to be fearful (especially Patrick, Seth, and Daniel); and lack of stable, easy relations with other children (which may have been connected with their failure to share the interests in materials, and in larger-muscle activities of the other children in the nursery school). In other words, in our competitive society, teasing appears at times as the aggressive outlet of a frustrated and somewhat fearful child, who is not too completely blocked to attempt an overt contact with his social world.

Being teased frequently resulted in teasing someone else, particularly among the group just described. Children who could fight off or laugh off teasing, seldom took it out on younger children as Seth, Reinhardt, and Patrick did.

April 19, 1934

Seth ran away with a pole.
Joyce said, "Don't!"
Adult spoke to Joyce.
Seth said, "Here, Joyce, here."
Joyce approached and said, "Mine!"
Seth ran off, saying, "Here it is."
He returned. Joyce approached.
Seth ran away again. Then approached, gave it to Joyce and went off and watched her.
Joyce said, "I have his stick," and laid it down.
Seth picked it up and went off with it.
Joyce said, "That's mine."
Seth went off.
Joyce pranced around and fell down.
Seth laughed.
Joyce got up.
Seth approached with a stick, continued to tease her with it, and ran off when she came near.
Seth said, "I'll find one for you." He looked around.
Teacher said to Seth, "Would you and Joyce like a ball?"
Seth said, "Well, maybe." He put the stick in the summer house.
Joyce approached to take it.
Seth snatched it.
The teacher helped Joyce and Seth play ball. She went off.
Seth went off and got a small ball.
Joyce watched Seth play with the ball.

The interplay between one child's work and another's activity sometimes resulted in the use of imaginative patterns by the first to rationalize his own activity. In the following episode, Reinhardt does not want to be interrupted and, although he accepts Seth's wish and responds to it, he makes Seth wait for the completion of his own imaginative pattern, i.e., the jumping board becomes an engine, and obviously engines do not stop at just any time for anybody.

April 11, 1934

Seth tried to get on the jumping board.
Reinhardt was jumping on it.
Seth said, "Stop!"
Reinhardt said, "The train's going; it will stop in just a minute."
Seth said, "When will it stop?"
Reinhardt jumped again and then stopped.

The real need is accepted and fitted into the imaginative pattern, but it is kept subordinate to the imaginative pattern, and must wait for its satisfaction upon the completion of the imaginative pattern.

In the case of Lucinda, the imaginative activity is used to rationalize a flat rejection of the other child's request:

March 5, 1934

Lucinda and Gwen bounced on board (a train).
Gwen said, "Stop—stop—I want to get off."
Lucinda said, "No, you can't. The train is in a tunnel."

These episodes illustrate a variety of ways in which self-oriented attitudes—guilt, or a strong interest of one's own at the moment, or deflation of one's own ego—may hold in abeyance sympathetic responses which emerge at times when the child is free from these feelings. The relation between the child's ego-status in the situation at the moment and his long-time drives appears to be the most important factor influencing variations in the child's behavior from one situation to another. In this respect the young child's behavior is like that of people at any age level; insecurity makes either for egocentric, defensive behavior or for a specious solicitude which is no more desirable than the defensiveness. "Training" in social behavior at any age level is not likely to be sound when it is imposed upon the foundation of an insecure personality.

Other variations in behavior may be understood from inspection of sequential records of individual children over longer and shorter periods. The development of a friendship in a child who has been on the periphery of the group may introduce sympathetic responses where they were absent before this friendship. Saul was not a child who showed very frequent active sympathetic responses to other children. Neither had he had very satisfactory relations with other children in the group during the first half of the year. But shortly after Gwen came, these two developed a friendship, which lasted for a couple of months, and which was a stepping stone to more constructive and varied social responses for both children. During this period, when Gwen was hurt, Saul responded to his friend with vivid comfort:

Feb. 15, 1934

Gwen and Saul had been playing together on the jumping board.
Gwen ran up the incline and was bumped by another child.
Saul approached, "Did he hit you on the head?"
Gwen's answer was not heard.
Saul said, "I'll rub it for you, Gwen."
Saul felt around Gwen's head and rubbed it (the way the teacher often rubbed a bump).

In this case, behavior which Saul had never shown before was released by the response to his new friend. It is possible that both psychological and neurological considerations would have to be invoked for a complete explanation of Saul's response; that is, rubbing a bump is one of many patterns of response that may be found in an experience of friendship—it is one of the things you can do for a friend (if you are four years old), and also the positive emotional elements, present in a friendly affectionate relation, may be said to "lower the threshold" for other responses such as sympathy. Or, conversely, as we have already suggested, the insecurity involved in lack of friends may raise the thresholds for sympathy, which appears spontaneously when that insecurity vanishes in a new friendship.

In the following sequence, an interesting development of motive can be seen; Seth unwittingly contributes to Joyce's fall and shows some sign of concern over her pain. This experience "lowers the threshold" for his awareness of her comfort, so that when she gets another bump within ten minutes he notices it, although he is at some distance. His response to her then culminates in what might be considered compensatory sympathy, expressed in his gentle swinging of her while they exchange smiles.

March 2, 1934

10:20

Seth was swinging. Lucinda was pushing him.
Joyce ran in front of the swing.
Seth bumped Joyce.
Joyce fell down at the edge of the sidewalk in the dirt, on her face; she cried and sobbed.
A teacher approached.
Seth said, "I was swinging."

Lucinda said, "Seth wanted me to push him high."
The teacher said, "You have to watch all the time. Joyce should have looked where she was going, too."
Seth watched soberly (guilty?) while the teacher picked Joyce up and brushed her off.
Seth and Lucinda approached the water table, then went back to the swing.
The teacher said, "It really wasn't anybody's fault; she got in the way of the swing."

March 2
10:32
Joyce bumped her hand on the waste box (after drinking water).
Joyce cried.
Heinrich watched soberly.
Seth watched from the swing about twenty feet away, and exclaimed, "Oh, Joyce got hurt again."
Lucinda, pushing Seth, watched, but said nothing.

March 2
10:35
Seth pushed Joyce gently in the swing.
Joyce smiled.
Seth smiled at Joyce.

An expression of identification of a less stable sort appears in the following episode:

March 15
Julius "shot" Saul with his toy gun.
Saul cried.
Julius said, "I shot him."
Julius ran off, then came back, shot again.
Saul cried.
Patrick watched, comforted Saul, and said "Let's break his neck, too, Saul."
Saul said, "Let's break his neck, too."
Patrick said, "Then I'll kill him, too."
Saul said, "Yes, 'cause he's a naughty boy."
Both rode off talking.
Saul said, "Let's send him to the butcher store, O.K.?"

Here Patrick's response to Saul takes the form of a retributive fantasy, in which he and the victim cooperate in retaliation upon the aggressor.

The variety of motives a given child may show may appear either in sequence, or in conjunction, resulting in "mixed emotions" in response to a particular situation. In the following situation, Wallis' apparently considerate warning of Jude turns out to be a precaution against damage to his own property:

Feb. 14, 1934
Jude approached Wallis, who was playing with a train; he had to step over the train to get by.
Wallis said, "Don't fall;—and don't knock it down."

The fact that he was usually very considerate of other children gives weight to the conclusion that the intention of protecting the other child and that of protecting his own property were both present, however.

Summary

In the two preceding chapters, we reviewed the statistical evidence for differences in the amount of sympathetic behavior in two groups of children studied for over a year, and in the amount of sympathetic behavior shown by individual children in each group. In this chapter we have presented evidence to show that even where high scores give unimpeachable evidence of a "sympathetic trait," the behavior which constitutes this trait is dependent upon the functional relation of the child to each situation, and that when shifts in status give a basis for a changed interpretation of the situation in which the child finds himself, changed behavior occurs. A significant proportion of the variations in a child's behavior which we have discussed are related to the child's security, as affected by competitive relations with other children, disapproval by adults, or guilt and self-accusation in relation to injury to another child. Variations of this sort are functional, and do not imply that other aspects of the child's behavior, more

dependent upon the structure of the organism, such as tempo, gesture habits, amount of large-muscle and small-muscle activity, rhythm, or coordination, would be so variable. Such aspects of behavior may prove to be stable characteristics of individual organisms, in contrast with social traits which are functional emergents from the total situation of child-in-group, in a particular cultural setting.

VI

Social Frustration

1.

FRUSTRATION AND AGGRESSION

A. The Frustration-Aggression Hypothesis

By Neal E. Miller, with the collaboration of Robert R. Sears, O. H. Mowrer, Leonard W. Doob, and John Dollard

The frustration-aggression hypothesis is an attempt to state a relationship believed to be important in many different fields of research. It is intended to suggest to the student of human nature that when he sees aggression he should turn a suspicious eye on possibilities that the organism or group is confronted with frustration; and that when he views interference with individual or group habits, he should be on the lookout for, among other things, aggression. This hypothesis is induced from commonsense observation, from clinical case histories, from a few experimental investigations, from sociological studies and from the results of anthropological field work. The systematic formulation of this hypothesis enables one to call sharp attention to certain common characteristics in a number of observations from all of these historically distinct fields of knowledge and thus to take one modest first step toward the unification of these fields.

Frustration produces instigations to a number of different types of response, one of which is an instigation to some form of aggression.

Instigation to aggression may occupy any one of a number of positions in the hierarchy of instigations aroused by a specific situation which is frustrating. If the instigation to aggression is the strongest member of this hierarchy, then acts of aggression will be the first response to occur. If the instigations to other responses incompatible with aggression are stronger than the instigation to aggression, then these other responses will occur at first and prevent, at least temporarily, the occurrence of acts of aggression. This opens up two further possibilities. If these other responses lead to a reduction in the instigation to the originally frustrated response, then the strength of the instigation to aggression is also reduced so that acts of aggression may not occur at all in the situation in question. If, on the other hand, the first responses do not lead to a reduction in the original instigation, then the instigations to them will tend to become weakened through extinction so that the next most dominant responses, which may or may not be aggression, will tend to occur. From this analysis it follows that the more successive responses of nonaggression are extinguished by continued frustration, the greater is the probability

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that the instigation to aggression eventually will become dominant so that some response of aggression actually will occur Whether or not the successive extinction of responses of nonaggression must inevitably lead to the dominance of the instigation to aggression depends, as was clearly stated in later pages of the book upon quantitative assumptions beyond the scope of our present knowledge [1] [2]

Frustration produces instigation to aggression but this is not the only type of instigation that it may produce Responses incompatible with aggression may, if sufficiently instigated, prevent the actual occurrence of acts of aggression In our society punishment of acts of aggression is a frequent source of instigation to acts incompatible with aggression

When the occurrence of acts of aggression is prevented by more strongly instigated incompatible responses, how is the existence of instigation to aggression to be determined? If only the more direct and overt acts of aggression have been inhibited, as is apt to be the case because such acts are the most likely to be punished, then the instigation to aggression may be detected by observing either indirect or less overt acts of aggression If even such acts of aggression are inhibited, then a different procedure must be employed Two such procedures are at least theoretically possible One is to reduce the competing instigations, such as fear of punishment, and observe whether or not acts of aggression then occur The other is to confront the subject with an additional frustration which previous experiments have demonstrated would by itself be too weak to arouse an instigation strong enough to override the competing responses inhibiting the aggression in question If the instigation from this additional frustration now results in an act of aggression, then it must have gained its strength to do so by summating with an already present but inhibited instigation to aggression The presence of the originally inhibited instigation to aggression would be demonstrated by the effects of such summation Thus the fact that an instigation may be inhibited does not eliminate all possibility of experimentally demonstrating its presence

At this point two important and related qualifications of the hypothesis may be repeated for emphasis though they have already been stated in the book It is not certain how early in the infancy of the individual the frustration aggression hypothesis is applicable and no assumptions are made as to whether the frustration aggression relationship is of innate or of learned origin

B. Definitions and Principles

By John Dollard, Leonard W. Doob, Neal E. Miller, O. H. Mowrer and Robert R Sears

Normally a series of acts ripples through without interruption, but interference may occur through punishment incident to the goal seeking activities or through inaccessibility of the goal itself The interference may be slight as when a mosquito hums near a person absorbed in thought, or great, as when an individ

From J Dollard and others, *Frustration and Aggression* (New Haven Yale University Press, 1939) Reprinted by permission of the authors and the publisher

[1] J Dollard and others, *Frustration and Aggression* (New Haven, Yale University Press, 1939) p 40

[2] The notions used here are similar to those employed by Professor Hull in describing trial and error learning See C L Hull, "Simple Trial and Error Learning—An Empirical Investigation," *J Comp Psychol*, 1939, XXVII, 233–258

ual suffers the effects of kidney disease. It is, nevertheless, the same form of interference that induces the frustration. Such expressions as "to disappoint a person," "to let someone down," "to cause pain to someone," and "to block somebody in carrying out an act" indicate that one person is imposing a frustration on another.

Neither the nature nor the origin of the interrupted behavior sequence need be considered here. It is essential only that it can be identified as in the process of occurring and that the mode of interference be specified. The goal-response may involve gross overt activity such as the manipulation of a physical object or it may involve but little overt activity as in the case of receiving congratulations for work well done. And it is irrelevant whether thumb sucking in an eighteen-months-old child occurs as an unlearned response, or whether the physical integrations necessary to it have been learned in other stimulus contexts. To have the object-manipulation or the receiving of congratulations or the thumb sucking blocked, however, constitutes a frustration. The instigations remain and the adequate goal-responses are interdicted. In order to say that a frustration exists, then, one must be able to specify two things: (1) that the organism could have been expected to perform certain acts, and (2) that these acts have been prevented from occurring.

A *substitute response* is any action which reduces to some degree the strength of the instigation, the goal-response to which was prevented from occurring. It has, therefore, one property of the goal-response itself: it too can reduce the strength of instigation. This reduction may occur as a result of a quantitatively reduced goal-response, as when a child is given an opportunity to enjoy some praise for turning a somersault instead of much praise for a handspring. Or the reduction of instigation may result from the occurrence of a goal-response to some more or less discrete element of the total instigation, as when a person lights a cigarette or drinks a glass of water while awaiting a delayed luncheon.

As may be supposed, substitute responses occur with great frequency in the face of frustrations of all kinds. Eating raisin pie when there is no mince, reading romantic stories when real romance is unavailable, producing amateur theatricals when having a professional career has been prevented are characteristic substitutions. Some responses of this kind are even so apparent that they approach caricatures and are recognized by all adults in our culture—the childless woman who pampers her lap dog, the jilted lover who marries his ex-fiancée's sister, the smoker who, renouncing his practice, chews gum. These examples may give denotative definition to the concept of substitute response.[1]

Substitute responses, moreover, can be either less or more effective as terminating and reinforcing agents than the original response. To the extent that they are equally or more effective, they put an end to the frustrations preceding them and to the aggression produced by these frustrations.

Any sequence of behavior, the goal-response to which is the injury of the person toward whom it is directed, is called *aggression*. According to the hypothesis, this is the primary and characteristic reaction to frustration.

[1] *Aggressive action* may be distinguished from *substitute response* operationally. Since a substitute response reduces the instigation to the original (frustrated) goal-response, removal of the interference which caused the frustration will be followed by a reduced goal-response. Aggressive action, on the other hand, reduces only the secondary instigation to aggression set up by the frustration and does not have any effect on the strength of the original instigation. Removal of the interference following an aggressive action, therefore, will be followed by the occurrence of the original (frustrated) goal-response at its normal strength and rate.

Many of the common forms of aggression can be instantly recognized by almost any observer who belongs to Western society. Acts of physical violence are perhaps the most obvious. Phantasies of "getting even" with galling superiors or rivals, calculated forays against frustrating persons (whether the weapon is a business deal, a gun, a malicious rumor, or a verbal castigation is of little moment), and generalized destructive or remonstrative outbursts like lynchings, strikes, and certain reformist campaigns are clearly forms of aggression as well. It hardly needs special emphasis that tremendously complex learned skills, such as the use of the boomerang and machine gun, may occur in these aggressive behavior sequences.

Aggression is not always manifested in overt movements but may exist as the content of a phantasy or dream or even a well-thought-out plan of revenge. It may be directed at the object which is perceived as causing the frustration or it may be displaced to some altogether innocent source or even toward the self, as in masochism, martyrdom, and suicide. The target of aggression quite as readily may be inanimate as animate, provided that the acts would be expected to produce injury were the object animate. In fact, the aggression may be undirected toward any object—a man swears after striking his thumb with a hammer—when the action would cause pain if it were directed toward a person. Such nouns as anger, resentment, hatred, hostility, animus, exasperation, irritation, and annoyance carry something of the meaning of the concept. Verbs such as destroy, damage, torment, retaliate, hurt, blow up, humiliate, insult, threaten, and intimidate refer to actions of an aggressive nature.[2]

Although the frustration-aggression hypothesis assumes a universal causal relation between frustration and aggression, it is important to note that the two concepts have been defined *independently* as well as *dependently*. The dependent definition of aggression is *that response which follows frustration, reduces only the secondary, frustration-produced instigation, and leaves the strength of the original instigation unaffected.* Frustration is independently defined as *that condition which exists when a goal-response suffers interference.* Aggression is independently defined as *an act whose goal-response is injury to an organism* (or *organism-surrogate*).

Summary

1. The strength of instigation to aggression varies directly with the amount of frustration. Variation in the amount of frustration is a function of three factors: (a) strength of instigation to the frustrated response; (b) degree of interference with the frustrated response; and (c) the number of response sequences frustrated.

2. The inhibition of any act of aggression varies directly with the strength of the punishment anticipated for the expression of that act. Punishment includes injury to loved objects and failure to carry out an instigated act as well as the usual situations which produce pain.

3. In general it may be said that, with the strength of frustration held constant, the greater the anticipation of punishment for a given act of aggression, the less apt that act is to occur; and secondly, with anticipation of punishment held constant, the greater the strength of the frustration, the more apt aggression is to occur.

4. The strongest instigation aroused by a frustration is to acts of aggression directed against the agent perceived to be the source of the frustration, and progressively weaker instigations are

[2] Aggressive behavior, like all other forms of behavior, is frequently forced into culturally defined patterns. Some of these are prohibited, some are permitted, and some are actually rewarded by social approval.

aroused to progressively less direct acts of aggression.

5. The inhibition of acts of direct aggression is an additional frustration which instigates aggression against the agent perceived to be responsible for this inhibition and increases the instigation to other forms of aggression. There is, consequently, a strong tendency for inhibited aggression to be displaced to different objects and expressed in modified forms. Socially approved modifications are called sublimations.

6. Since self-punishment is necessarily involved, aggression turned against the self must overcome a certain amount of inhibition and therefore tends not to occur unless other forms of expression are even more strongly inhibited. If the amount of inhibition of various acts of aggression is held relatively constant, the tendency to self-aggression is stronger both when the individual believes himself, rather than an external agent, to be responsible for the original frustration and when direct aggression is restrained by the self rather than by an external agent.

7. The expression of any act of aggression is a catharsis that reduces the instigation to all other acts of aggression. From this and the principle of displacement it follows that, with the level of original frustration held constant, there should be an inverse relationship between the expression of various forms of aggression.

8. It is the functional unity represented by the phenomena of catharsis and displacement that justifies attaching the label of aggression to the variety of responses considered in this theoretical presentation.

C. Adult Reactions in a Frustrating Situation *By Robert R. Sears, Carl I. Hovland, and Neal E. Miller*

In the present study six subjects were subjected to 24 hours of sleep deprivation. They were Yale students registered with the University Personnel Bureau and were paid by the hour for their services. The investigation was purely exploratory.

Schedule. The six subjects reported at the laboratory on a Thursday morning and were given a number of tests as controls for other measures taken the following morning after 24 hours of sleep deprivation. This Thursday morning test period is referred to below as Control I. The *S*'s were permitted to attend classes during the day (Thursday) and returned to the laboratory at 7 : 30 P.M. They were kept under close observation from then until 8 : 00 Friday morning, when they were released. During the sleepless night the subjects stayed in two large adjoining seminar rooms except for occasional brief trips across the hall to the toilet. At least two observers were in the room at all times. The *S*'s returned for further control measures (Control II) on Saturday morning.

Frustrations Imposed. The object of the experiment was to provide as much frustration as possible. The *S*'s were permitted to spend the evening studying or reading quietly and were told that when they got bored with their work one of the *E*'s would arrive with several games and some decks of cards. *S*'s were permitted to smoke until midnight, but thereafter they were rather curtly informed that smoking was altogether taboo. The *E*'s continued to smoke in their presence. At 3 : 00 A.M. the *E* who was supposed to bring the games about midnight appeared, but he had "forgotten" the

From "Minor Studies of Aggression: I. Measurement of Aggressive Behavior," *Journal of Psychology*, 1940, IX, 277–281. Reprinted by permission of the authors and the publisher.

games and cards. A period of enforced silence was required in the midst of an interesting discussion. The *S*'s became very hungry by midnight and requested food. They were promised that a hot breakfast would be provided at 5:00 A.M., but the *E* who went out at that time to get the food failed to return. At 6:00 A.M. the remaining *E*'s "decided" not to wait for him and concluded the experiment by presenting the tests.

Aggressive Behavior. These various frustrations proved more than adequate for producing aggression and seemed to be amazingly effective in spite of their transparency. The rationale of the experiment, as given to the *S*'s at their first meeting, was as a study of the effect of loss of sleep on reflex and motor activities. The experiment was explained and discussed with each *S* individually after he had completed the second control session and it was discovered that none of the subjects had suspected the true purpose. All were very much surprised and quite interested. They discussed the effects of the various frustrations quite freely and agreed that the failure of the *E* to provide games and to provide breakfast on time were the two most exasperating occurrences. The loss of sleep itself they considered to have served as a good background for these experiences because it weakened their morale and made them more susceptible to these other irritations. It was the general belief of both *S*'s and *E*'s that the coming of day decreased to some extent the frustration and that a greater amount of aggression was present at 3:00 or 4:00 o'clock than at the time when the experimental measures were taken (6:00–8:00 o'clock).

The aggression which all subjects showed was directed largely at the *E*'s. The conditions of the experiment apparently encouraged the formation of an "in-group" among the *S*'s and although on one or two occasions there were outbreaks of aggression within the group, most such aggression was in the form of socially acceptable jokes and wise-cracks at one another. Aggression toward the *E*'s was manifested by quite overt remarks, many of them in the form of accusatory questions asked in a hard, unfriendly tone.

Various episodes and comments can be cited as examples of the aggression produced by the treatment. Most convincing, perhaps, is a stenographic record of some of the conversation carried on by the *S*'s.

3:30 A.M. Two observers arrived. Group of four *S*'s in one room sitting and talking. "*Can we eat?*" (*E:* "*No.*") "*Oh, gosh, are we subjected to that, too?*" "*You're up pretty late, aren't you, doc?*" "*Don't you think you'll be missing your sleep?*"

3:40 A.M. An *E* ostentatiously lit a cigarette. Group of five *S*'s sitting together. "*Where's this partial entertainment you offered us? How about some stories?*" (*E* told dull joke; no laughter.) "*We discussed cannibalism earlier in the evening.*" (*E:* "*Would you eat human flesh?*") "*We may yet tonight.*" (Meaningful look at one of the *E*'s; much snickering among *S*'s.)

3:50 A.M. "*What would happen if we would walk out?*" "*I suppose you'd blackmail us.*" "*I bet it would wreck your experiment if we did. Let's leave.*"

5:15 A.M. "*Are all psychologists mad?*" "*They're all queer. I've been watching 'em for a couple of hours.*" "*Everything in this experiment was done 60 years ago—everything.*" "*It's kid stuff.*"

5:30 A.M. (One *S* addressed an *E* as "*Doctor.*") "*Don't call him Doctor; you must be a freshman.*" (Mumbling agreement from other *S*'s.)

One rather startling piece of aggression which occurred during the latter part of the night is reproduced as Figure 1. These figures were desultory pencil sketches made by the subject who had been most out-spokenly aggressive throughout the night. When they were finished, he passed them around to the other *S*'s. The latter were much amused and laughed heartily. One *S* asked the artist what the pictures represented, and

the reply was "*Psychologists.*" In this connection it is interesting to recall Patrick and Gilbert's report[1] that a sleep-deprived "subject, standing with eyes open, reflectively gazing at a piece of apparatus upon which there were some pieces of rope, suddenly reported that he had had a dream about a man being hung."

The general attitude of the *S*'s toward the *E*'s was one of hostility and complaint. The only direct aggression displayed, however, was in the form of joking references to the dullness of the experiment and the uncooperativeness of the experimenters. No serious attempts were made to get away from the experiment or to modify its conditions.

A word should be added concerning the difficulty of manipulating such an experiment. Quite aside from the obvious difficulty resulting from the uncooperativeness of the subjects there is the problem for the experimenter of managing his own aggressions. The cultural demands on the subjects for politeness and restraint in a social situation involving professors can serve as such an inhibiting factor that no aggression will be overtly manifested if the experimenter inadvertently reacts toward the *S*'s aggression with even the smallest indication of counter-aggression. On the other hand, the experimenter must endure recognizable attacks, at least at a verbal level,

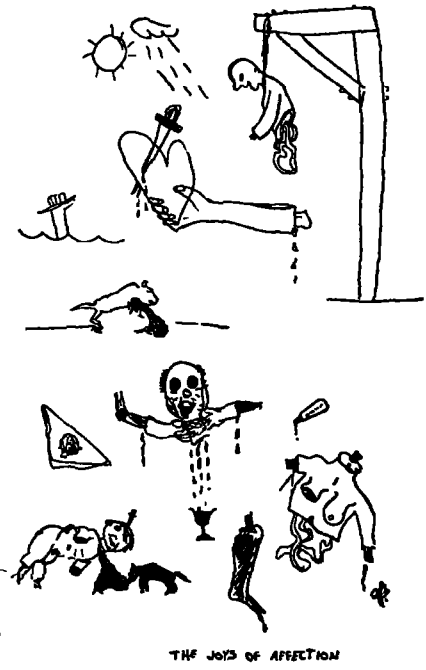


FIG. 1. Spontaneous drawings made by a sleep-deprived subject.

from a source from which he has never previously been forced to accept such treatment. His own aggression is inevitably aroused. If he permits any suggestion of this to be disclosed to the subjects, however, he immediately loses all opportunity of observing the signs of overt aggression.

D. The Hostile Act *By David M. Levy*

In *Frustration and Aggression*[1] the situations in which frustration occurs always call for aggression, in terms of an attack on a frustrating agent. If no frustrating agent is present, then some object must be created for the purpose of relieving aggressive tendencies that arise in the frustrating situations. The need varies according to the tolerance to frustration. If the tolerance is poor, then

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[1] G. T. W. Patrick and J. A. Gilbert, "On the Effects of Loss of Sleep," *Psychol. Rev.*, 1896, III, 469–483.

[1] J. Dollard and others, *Frustration and Aggression* (New Haven: Yale University Press, 1939).

some aggressor must be fabricated. A thwarted individual would then displace the aggression onto a system or onto any group representing a constellation of ideas that evoked hostility, no matter how mild, in the previous experience of the individual. This is all a familiar type of psychodynamics, namely the release of tensions arising from frustration and the use of an available object for its expression. To say, however, that aggression arises as a result of any frustrating experience is a generalization that requires scrutiny.

There are any number of frustrations that do not evoke aggressive response in the sense of discharging hostility against a social object or its surrogates. There are, for example, a number of experiments in which animals are frustrated and in which such aggression does not occur. In my own work on the sucking behavior of dogs, an experiment was made in which two puppies were given adequate milk from the bottle, but fed so quickly that their sucking needs were never satisfied. In contrast to the two "control" puppies who were given adequate satisfactions both of feeding and of sucking, the experimental animals showed no problem in aggression that could be directly traced to the sucking frustration. The result was rather a type of perverted sucking. They sucked each other, their own paws, objects, and later on, after eating, they licked the plate interminably. In terms of general personality description, one of the experimental puppies could be described as more aggressive than the controls, the other less so. But these differences, it could be shown, were modes of reaction that occurred in the beginning of the experiment and were probably reinforced by the particular difficulty of the situation. I do not wish to elaborate this point, except to say that the puppy who was originally aggressive became more so, in certain respects, after the sucking difficulty was established, whereas the other puppy became more submissive.

In chickens in which pecking frustrations were produced, there was also no evidence of increased aggression. In the experiment 100 chicks were fed from troughs in the usual way, but prevented from pecking off the ground by covering it with a raised wire mesh. The control group of 100 in the adjoining half of the same chicken house were fed from troughs, but not prevented from pecking from the ground. The chickens on the wire pecked each other's feathers but, as the experiment revealed, the pecking was not due to increased aggression but to increased pecking needs. This same type of situation has been shown for other animals and for human infants also. The sucking frustrations in infancy cause finger sucking or sucking of other objects, as in the case of the experimental puppies, rather than increased aggression. There is no proof that the so-called weaning traumas of infancy cause more aggression or even more phantasies of hostility and the like than in other children. The same may be said of all those frustrations that have to do with bowel and bladder control.

A distinction may be made between the type of aggression described, especially in regard to sucking habits, and the situations of the type described by Dr. Dollard and his colleagues. The former may be called physiologic, the latter social types of frustration. However, Dr. Dollard has included the type of physiologic frustration I have mentioned as typically provocative of aggression. His generalization could be easily amended. It is a question, however, as to whether numerous situations in which the individual does not deal directly with frustration readily translatable into terms of an aggressor, typically stimulate the aggressive rejoinder, for example frustrations arising out of one's own inability to solve a mathematical problem and the like. The fact that tension may arise in any such instance, and that this tension is released by some motor action

whether tapping a pencil or pacing the floor, does not mean it is an aggressive act in a social sense. Furthermore, acts that typically call for aggressive behavior in certain individuals may affect others differently. To say that in such cases the aggression should follow but is repressed would require considerable study. Aggression is one of the ways of responding to frustration in a social situation. Presumably it varies in the strength of its impulse and its execution in different individuals. In the phantasies that occur during frustration, or in the choice of behavior to satisfy the particular tensions that arise, various possibilities occur. To state that only one possibility, namely the aggressive act, is the logical response to frustration, all others being forms of extemporizing, needs further proof.

The response of a child to the new baby is a very good example of a frustrating situation commonly evoking aggressive behavior in the form of an assault on the baby or mother, or both. However, though this pattern is seen most frequently, there are instances in which it does not occur. For example, a child may respond to the coming of the baby with, primarily, a desire to possess it, to have it for one's own. This is not an aggressive response in the form of an assault on a social object, yet the reaction may be a very strong one. The new baby may call forth a very strong maternal protective attitude, especially when the prior child is a girl, say, eight or ten years older than the newborn. In this situation there is a frustrating experience highly reduced as compared with one in which the age difference is only two or four years. Nevertheless, such situations may reveal frustration and yet show a maternal response as a primary determinant. It may be argued that the maternal response represents jealousy of the mother and hence a concealed aggression against her. That is to say, one may always argue in favor of the theory of aggression as against any other form of behavior in a similar situation. As yet, we have no definite proof that that is always the case.

In regard to sibling rivalry, however, the aggressive response to the new baby is so typical that it is safe to say it is a common feature of family life. As seen in 'control situations' the aggressive act in its various forms is depicted so clearly that the dynamic process is worth describing. In the control situation dolls are used representing the baby at the mother's breast and an older child who stands for the patient. If it is a boy the question used to set off the behavior is: "And then the brother sees the new baby at the mother's breast. He never saw him before. What does he do?"

In reviewing the patterns of over 100 S–R experiments of children ranging from two to thirteen years, it is most useful to conceive of the act as an ongoing social process, a dynamic unit of behavior, with various influences brought to bear upon it in every phase. The completed primitive performance is an act in which the child attacks the baby doll and destroys it by biting it, tearing it with his fingers, or crushing it with his feet. If the experiment is repeated, there is, in most of the instances at ages three, four and five, a fulfillment of hostile activity of this type. In others there are varying approaches to this end-point, easily observed and measured. In the beginning of the act when, presumably, the impulse to attack is felt, one observes varying forms of inhibitions to the impulse, so that the act does not come out. These may be in the form of pauses, of saying, "I don't know what to do," of attempting to change the play into some other form, to play with other objects, or even to get out of the playroom. Sometimes the first act is to slap the doll standing for the subject. When a three-year-old girl was asked, "Why did you do that?" she said, "Because she was bad. She wanted to hit the baby." This

type of response indicates that the hostile impulse had to be dealt with before the act occurred, that the impulse itself was judged to be bad, that the thought of the act had to be dealt with by punishment as though it were already fulfilled. The inhibition of the impulse may take the form of assumed stupidity like, "I don't know what you mean. I don't know what you want." Such inferences are based on the fact that without any explanation, merely by saying "Go ahead" and repeating the experiment, the hostile act in such cases follows.

Without elaborating the meaning of the various kinds of inhibitions that take place before the act overtly occurs, it may be sufficient to say that we are dealing with repressions and, I believe, the equivalent of superego injunctions; that is to say, the child is in its impulse to act identifying itself with the attitude of a prohibiting parent.

Once the act goes into execution we see a number of efforts to deflect its aim so that the object of hostility will not be reached. At this point a common form of inhibition is a blocking of the act, as, for example, a slapping movement made at the doll which is held back. Another common form is displacement, whereby an object close to the doll is hit and the doll itself avoided. This may be seen also in the form of nonspecific aggression, in which the child shoots at the ceiling, or at various objects in a direction entirely different from that of the baby doll.

So far we may say of the modifying influences that occur when the impulse to act is felt, the inhibiting influences tend to block the act when they occur at its initial point (the impulse) and, once the act goes into execution, to reduce it to a gesture or shunt it off.

Even when the object is directly hit, modifications of the attack at the target appear. For example, the hit may change into a touch. Instead of being struck at, the baby is just removed, or dropped. At this point, too, the attack may be disguised. The child takes the baby away and says, "It has to go to the hospital for an operation," and the like. As, presumably, the behavior of the child is released, the attack on the baby becomes free of all modifying forms and the object is destroyed in the manner described.

Even when the baby doll is attacked freely and crushed, the act is not necessarily completed. We are aware at this phase of a number of activities that prove its incompleteness. For example, a child after attacking the baby and crushing it, begins to defend itself for its behavior. The child says, "It was a bad baby." Another child says at this point, "We don't need two babies in one house." Commonly at this stage the doll standing for the brother or sister is attacked, usually with the same method used on the baby. Another common pattern is seen in attempts to restore the baby, to make it come to life again, to fix it up, to deny what happened, and say, "The baby fell apart. Now it's all together again." One child at this stage said it was all a dream, it didn't happen. We see in these various performances that take place in the completion of the hostile attack on the baby, restoring behavior, self-retaliatory behavior, attempts at self-justification, and attempts to wash out the act by attributing to it the aspect of a dream or just play. In several cases children had a kind of war dance after achieving their purpose. In line with other patterns it would be interesting to speculate on this type of war dance as a way of warding off anxiety described in psychoanalytic literature.

Through these control situation experiments we see depicted the type of aggression of which Dr. Dollard and his colleagues have written in clear form, influenced in every stage of their study by the emotional problems of the individual.

E. The Frustration-Aggression Hypothesis and Culture

By Gregory Bateson

I have been asked to examine the framework of *Frustration and Aggression* [1] from a specific point of view—that which comes from the experience of studying contrasting cultures—and for lack of space I shall confine myself rigidly to this point of view, at the risk of the reader assuming that I regard "culture" as the answer to all our problems.

The greatest virtue of the book is that it is an attempt to *simplify* a great gamut of phenomena into a very condensed series of propositions. It attempts a formal picture, shaven as bare as possible with Occam's Razor. This simplification has this important virtue that while it makes the book easy to criticize, it also compels the critic to state his objections in terms of the simple formulations. Every such criticism must of necessity be constructive.

When we approach such a system of propositions, it is of no use to say something like this, "Your picture is in black and white, you make no mention of color, and I, the critic, am only interested in color."

Rather, I think we should approach the formulations with the question "Can the sort of things which I, a student of culture, want to say, be said in terms of these given abstractions?" Let us, if we possibly can, avoid complicating the formulations, multiplying the entities beyond necessity.

It is true that the cultural matrix is not specifically mentioned in the basic definitions of the elements in the frustration-aggression sequence. The definitions are constructed almost as if the individual existed *in vacuo*. But, as a matter of fact, there are two places in the system in which culture, though not mentioned explicitly, is at least admitted by implication. Before we say therefore that the hypothesis makes no allowance for culture we must see how much latitude the formulations really allow us.

In the first place, culture is invoked by implication when the whole hypothesis is stated to refer specifically to observed *human* behavior. This must necessarily mean 'cultural behavior' since we know of no human behavior which is not modified in terms of the social milieu in which the subject lives.

There are a few exceptions to this sweeping statement—spinal reflexes and intra-uterine reactions and perhaps some of the reactions of the newborn, but of these it may be said that we do not know enough about them to say that they are subject to cultural modification—nor can we at present apply the frustration-aggression hypothesis to these reactions. I think it very important that these reactions should be investigated—but for the present, at any rate, we do not know whether (for example) the temper tantrum of a newborn baby is an instance of 'aggression' as operationally defined—a series of actions having as their reinforcing goal-reaction 'injury to some other organism or organism surrogate.' So, lacking more knowledge, we must leave aside these exceptions to the sweeping statement that all human behavior is modified in relation to a cultural or social matrix, and assume that the frustration-aggression hypothesis refers simply to sequences of culturally modified acts.

The second point in the formulations, which implies that culture was in the minds of the authors, is the definition of

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[1] J. Dollard and others, *Frustration and Aggression* (New Haven: Yale University Press, 1939).

aggression which I have just quoted—the reinforcement by injury to *some other organism or organism surrogate.* And in general it is assumed in later chapters of the book that the aggression will be directed in the first instance against the agent who did the frustrating.

Thus we see that the hypothesis is essentially a statement about series of *cultural behaviors in interpersonal contexts,* and it is evident that the authors regard it as such though they are willing to regard such behavior as an animistic assault on a typewriter which will not work, a murderous daydream, or a lonely suicide, as extensions from their central theme.

Let me now try to take this central thesis into two strange cultures and briefly state whether the thesis can be made to fit. If we look at the Iatmul of New Guinea, we find that the thesis fits them perfectly, so that I need not waste much time on the details of their behavior. The Iatmul, when engaged in some series of activities which will bring a future satisfaction, will constantly look forward to that satisfaction as a means of diminishing the pains of present effort. And when they reach the satisfaction, they will heighten its value by looking back to the pains which went into the achievement. If they are interrupted, they will exhibit definitely aggressive behavior. The thesis fits them, but they have added one wrinkle which is not provided for in the formulation—they have invested aggression with pleasure. For the Iatmul, aggression must be regarded as a self-rewarding action series, self-reinforcing regardless of whether it ends in injury to some other person.

And they go further than this—they habitually convert their conative efforts into imaginary aggression. The man who is cutting down a tree will excite himself to greater efforts by seeing himself as engaged in active assault upon the tree—or the child driving out the mosquitoes will smirch them with violent sexual abuse. On the whole, however, I think it would be fair to say that the thesis fits the Iatmul at least as clearly as it does Europe.

But when we try to apply the same thesis in Bali, we get into difficulties, since it is hard to find a series of acts with a clearly defined reinforcing goal response. It is not that the Balinese behavior disagrees with the thesis, but rather that the contexts in which we might look for the thesis can hardly be said to occur in Bali. The Iatmul and we ourselves see life as divided into sequences of neutral or unpleasant conative acts ending in satisfactions, but the Balinese do not see life like this. They are a busy, active people—but they are infinitely willing to suffer interruption. We never at any time saw a Balinese annoyed because he was interrupted in the course of some series of acts. They seem to take a very definite pleasure in mere activity in the present—in the very instant—either enjoying their own busyness or else ignoring what they are doing, letting their muscles run on automatically with the activity while their attention is given to some unreal world, singing the songs from the last opera which was performed in the village.

Now it is the assumption of the theory that the typical seriation of acts, punctuated by climaxes of satisfaction, is basically human and ought to occur in all cultures, and therefore we must refer to the Balinese children.

We find that by and large the thesis can be applied to the children although it cannot clearly—at least not often—be applied to the adults. The children, however, can be frustrated and have temper tantrums when they are frustrated.

The problem remains as to how the children are modified so as to render them unfrustratable in these terms. The problem is something like this: "How is a certain structuralization of sequences of acts taught to the child?" "How does it learn to see life as composed of smooth

series of enjoyable acts rather than as separate sequences of acts where each sequence leads up to some satisfying climax?"

I can offer a partial answer to this question, but to state this answer I must modify the formulations of the frustration-aggression hypothesis. The hypothesis invokes two types of switching from one sequence to another. The first type is called 'substitution' and here the reinforcing act is comparable to that of the original series. Substitution is defined in terms of partial satisfaction of the original instigators. The second type is the switch to aggression about which it is assumed that the reinforcing goal is fundamentally different from that of the original interrupted sequence.

In order to phrase the phenomena of Balinese conditioning, I shall have to assume that there is only one type of switching—that, in fact, the aggression sequence (the temper tantrum) is fundamentally only another case of substitute response.

So far, I have only simplified the formulations by reducing the number of entities, but I must add one complication. In order to bring the aggression sequence under the heading of 'substitution' I must assume that human acts are primarily and essentially inter-personal acts. I would say that the common element between eating the ice cream cone and hitting the mother is that both are events in a behavior sequence involving the child and the mother. I would say that the receiving and perhaps the eating of the ice cream is for the child a pleasant small love climax in his relationship with his mother, while the temper tantrum is a hate climax in the same relationship. Either way, he gets his climax, and there is this much to be said for equating the two phenomena, that among male primates and men we find a pretty strong tendency to confuse love making with aggression.

Now in the Balinese mother-child relationship, we find that the mother constantly enjoys titillating the child's emotions—giving it a taste of behavior sequences which the child might expect to end in climax. The mother enjoys the sequence but the climax does not occur. At the moment when the child either flings his arms around her neck or bursts into tears, the mother's attention seems to have wandered; she is in a brown study or she is speaking to somebody else.

In this way, I believe the Balinese child is driven not to expect or look for climax in his acts, but to take his pleasure where his mother took it—in preliminary steps with no defined goal—and to live in the immediate present not in some distant goal.

F. Hostility and Fear in Social Life *By John Dollard*

This paper will discuss what is commonly termed "race prejudice." Close analysis of the word reveals at least two distinct situations in which it is used: one where irrational antagonism is vented against other people, and the other where rational, that is intelligible, hostility is aroused in defense of a given status or economic order.[1] The events which common speech indicates as "race prejudice"

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[1] Faris indicates a distinction that is apparently analogous in saying that prejudice attitudes are "impermeable to experience." The same imperviousness is characteristic of irrational aggression. *See* Ellsworth Faris, *The Nature of Human Nature* (New York: McGraw-Hill Book Co., 1937), p. 323.

may perhaps better be denoted in other terms.[2] The first necessity will be to examine the conditions under which animals may make hostile responses in social life and to see "race prejudice" in this context. Prejudice reactions cannot be separated from the responses of the organism to its total environment and can only be seen adequately when the nature of the process of socialization is held clearly in mind. We will begin, therefore, with a series of paragraphs indicating the societal context in which aggression is generated and the types of controls placed on hostility by our moral order.

Society is seen here as a group of cooperating animals, producing goods and services and continuing by procreation within the group.[3] The mode of life of a society is defined by a culture which is for any one generation an arbitrary inheritance of problem solutions.[4] Since aggressive responses of constituent members are a problem to every society, the culture includes patterned ways of dealing with these responses. A society maintains group unity by positive ties between its members based on services mutually rendered, by suppressing in-group aggression and by defensive-aggressive operations against other animal groups.[5] Relatively self-contained societies were easier to define in former days when western European techniques of production had not yet tended to bring the whole world into a specialized and interdependent economic unit. It still seems worth while, however, to speak of such a thing as an "American society," albeit it is only relatively an independent economic and procreative unit.

Animals are added to a society one by one and trained individually. Social patterns are transmitted by persons who become the targets of positive and negative feeling from the child as the result of facilitating and frustrating behavior on their parts. Each child develops a positive feeling for its own group members and indirectly for all their traits, such as language, smell, appearance and custom. Since renunciations are invariably imposed on the incoming animal, it develops also hostile attitudes toward these trainers and toward in-group members and symbols; these attitudes include animosity toward parents and siblings and a negative (as well as positive) feeling tone toward the mores, including religion and authoritarian institutions generally. A correct understanding of this process is indispensable to a proper evaluation of in-group and out-group feeling and hence to related phenomena, such as "race prejudice."

The hostility of an animal toward its in-group is a constant threat to the solidarity of the group and therefore to the continuation of economic cooperation, common defensive operations, and the sharing of a common culture. Such hostility in the individual animal is therefore met with a united hostile front by all other members of the group and is, if necessary, forcibly suppressed. Techniques for accomplishing this suppression range from withdrawal of privilege to a disobedient child to the operations of the criminal law. Supernatural sanctions are frequently invoked, as in the taboo, to inhibit countermores tendencies.

Thus the animal coming into the group (by birth) finds that hostile moves to-

[2] Dr. A. H. Maslow of Brooklyn College has aided me in clearing up my mind on this score by pointing out the "accretive" nature of the term "race prejudice" and suggesting that, on analysis, it would dissolve into a number of disparate concepts.

[3] W. G Sumner and A. G. Keller, *The Science of Society* (New Haven: Yale University Press, 1932), Vol: I, pp. 6–7.

[4] An excellent illustration of this view is given by Dr. C. S. Ford. *See* his "A Sample Comparative Analysis of Material Culture" in G. P. Murdock (ed.), *Studies in the Science of Society* (New Haven. Yale University Press, 1937), pp. 225–246.

[5] W. G. Sumner, *Folkways* (Boston: Ginn & Co., 1906), p. 12.

ward in-group members are either hopeless, as in the case of the small child against adults, or dangerous, as in the case of a deserter from an army, and they are for the most part abandoned as overt modes of response. Alexander [6] has correctly said that the control of aggressive behavior is one of the chief problems of social life. Sumner [7] has also perceived the underlying fact of hostility between members of society and expressed it in his concept of "antagonistic cooperation." Socialization of the child should be conceived of in one aspect as a battleground between the rejection responses [8] of the child and the demands of the existing moral order into which the child is born. Our child psychology is at present so far unrealistic as drastically to underestimate the strength, character and perseverance of these responses. Common experience as well as my own studies of socialization in two children (unpublished) indicate the frustrating character of the limitations imposed on the naive and early acquired reaction tendencies of the child, the aggression which arises in the animal as a result of these frustrations and the social opposition to this aggression which is immediately evident. It is in part the underestimation of these tendencies which makes "race prejudice" seem so mysterious. Neither child nor adult individual may be seen as a smoothly compacted group of attitudes, perfectly defined by the traditional social order. Rather each person is a record of a battle; he has a rugged history in which frustration, hostility and fear have all played roles. There is further, in our social psychology, an underestimation of the frustrating character of in-group life for its adult participants.[9] These frustrations also arouse antagonism against the cherished in-grouper, an antagonism which is not extinguished by the fact that it is not permitted an expression corresponding to its intensity.

Each animal inducted into the social group finally learns to check hostility toward in-groupers either by self-control or repression. It is this fact which gives acculturated animals such a well accommodated "look" to the outside eye, so that the superficial student will hardly suspect the dynamic nature of the history of the animal or the tension created within its personality by the necessity for suppressing aggressive responses. The fact that animals can repress aggression, as well as other tendencies, is one of their most valuable organic capacities from the standpoint of adjustment in society. Individuals unable to perform this task have to be killed as murderers or rapers or isolated as criminals or mental deviants. Repression [10] takes place either through fear of loss of favor of a valuable group member, such as a parent, or through fear of punishment.

Repressed aggressive tendencies are therefore a standard feature of the life of every well socialized animal. In mature animals the aggression is constantly provoked from at least two sources: first, through continuing demands for satisfactions which had to be tabooed in the course of socialization; such (neurotic) wishes are exemplified by the desire incontinently to master all other people who come within one's ken or to gain control of others by exhibiting constant dependence on them and exciting pity. Second, aggression is aroused through

[6] Franz Alexander, "Psychoanalysis and Social Disorganization," *Am. J. Soc.* 1937; XLII, 806.

[7] *Op. cit.*, p. 16.

[8] Sherman's work indicates that aggressive responses in the newborn are a segment of rejection responses to stimuli. *See* Mandell Sherman, "A Proposed Theory of the Development of Emotional Responses in Infants," *J. Comp Psychol*, 1928, VIII, 385–395.

[9] E. S. Bogardus shows awareness of this feature of social life. *See* his *Immigration and Race Attitudes* (Boston: D. C. Heath & Co., 1928), pp. 21–22.

[10] S. Freud, *Introductory Lectures on Psychoanalysis* (London: 1923), p. 248.

rivalry over the securing of desired goals or values such as high status, sex partners, or satisfactions incident to a standard of living. It is these rivalries, of course, which arouse the aggressions noted by Sumner and which fund the antagonism described in his "antagonistic cooperation." The extent of such frustrations is concealed in many people by a sour-grapes attitude which leads them to affirm grudgingly that they do not want what is actually inaccessible. Deprivation is nevertheless perceived whether it is formally acknowledged or not and from deprivation arise the hostilities toward in-group competitors, hostilities which can never be permitted an expression proportionate to their intensity. As I [11] have elsewhere indicated, it is the underestimation of these two sources of deprivation and antagonism which makes such phenomena as "race prejudice" seem baffling.

The renunciation of aggressive modes of response to in-groupers is not absolute. Each society standardizes its own permissive patterns and differs from the next in the degree to which hostility may be expressed. In our own society, we are allowed, for example, a limited right to compete for direct goals as by business manipulations, courtship, or sport. We may, also, kill in war-time, defensively, of course; and we have limited rights to derogate others, such as children by adults, women by men, those who cannot get work by those who cannot give it, and some politicians by other politicians. Those who have carried repression too far, by the way, are not able to make use of these opportunities to compete, and they appear as our neurotic persons.

It seems to be a matter of fact that socially permitted aggression is only rarely adequate to drain off the tensions excited by the limiting conditions of socialization in adult life. As a result, in-group members seem to live in a constant readiness for aggressive responses and are set to take advantage of any break in the barrier of social suppression, as for example, when after an economic depression, a guiltless and helpless President is howled, and aggressively voted, out of public life.

Aggressive responses are apparently powerfully excited by fear. Fear of punishment arouses hostile feelings toward the punishing person and, if strong enough, can lead to direct attack even under circumstances where the response is hopeless as a mode of defense. This is the case of the turning worm and the trapped animal. Intensive studies of individuals have repeatedly demonstrated the existence of the following mechanism: first, wishes to injure other people or the accomplishment of such injury; second, a fear of retaliation based on what has been done or intended; third, the appearance of new aggression against the wronged object. This vicious circle phenomenon is an example of psychological interaction and can lead to apparently reasonless hostile behavior toward those who are guilty only of being the objects of our hostility. The "image" of the ferocious out-grouper, unboundedly hostile toward us, is undoubtedly built up by this process as well as by the reality of damage incurred from such out-groupers.

"Race prejudice" appears as a mixed phenomenon in the context outlined above. It is apparently one of the patterned circumstances under which an animal may kill, injure, exploit, master, scorn, or derogate another animal or group of animals.[12] In examining these circumstances we will ask ourselves three questions: *What type of aggression* is manifested in a variety of events commonly

[11] John Dollard, *Caste and Class in a Southern Town* (New Haven: Yale University Press, 1937), p. 442.

[12] The presence of aggressive responses in race prejudice has been referred to regularly in one way and another by writers in the field. *See*, for example, W. I. Thomas, "The Psychology of Race Prejudice," *Am. J. Soc.*, 1904, IX, 609–11; E. B. Reuter, *The American Race Problem* (New York: T. Y.

described by the term? *How is social permission* for aggressive behavior obtained? *How* are these animals or groups of animals *identified* which may be hated with impunity from in-group control?

Under the mixed designation "race prejudice" at least two types of aggressive responses can be indicated. The first is *direct aggression*. Here, the animal or group imposing the frustration and inciting the aggressive response is identified, and the aggressive responses are or can be efficient in controlling the frustrating group. The competition in Southern-town for "white man's" jobs is a case in point. Real animosity is manifested against the competing Negro workers, and political and other measures are taken to limit the frustrating competition of such Negroes.[13] Invasion of southern Negroes into northern employment and residence areas, as in East St. Louis and Chicago, has produced similar direct aggressive responses, including riotous attacks.[14] Real competition and frustration lead to real insecurity and out of this insecurity stems the aggression which is designed to restore a balanced situation. Actually in the case of "white man's" jobs, the Negro is pushed out of a "place" which he has formerly occupied and a new and narrower definition of his field of operations is created.

The second type of aggression which appears under the heading "race prejudice" we will call *displaced*. In this case the inciting cause of the aggressive response is not the object attacked but some in-grouper who can not be attacked because of his value or the danger connected with fighting him. The aggressive response has been restrained or repressed, and it finds a substitute object. Such aggression seems to be the dynamic component of prejudice where the prejudiced individual has had no contact with the object of derogation. The assumption of displaced aggression seems necessary for the cases indicated by Bogardus and Horowitz[15] where groups who could have had no possible direct reason for it, show animosity. It is Freud's[16] indispensable work on the individual human being in our society which has made the knowledge of this mechanism available.

It appears that in the case of direct aggression there is always some displaced aggression accompanying it and adding additional force to the rational attack.[17] Justifiable aggressive responses seem to break the way for irrational and unjustifiable hostilities. This fact is illustrated in any war and probably accounts for the damnable character of the image of the enemy who is hated, and therefore feared, with disproportionate intensity. The image of the incredibly hostile and amoral out-grouper is built up out of our own real antagonism plus our displaced aggression against him; these heightened aggressive responses raise through fear of retaliation the vision of the unbearably hostile enemy.[18]

Crowell Co., 1927), p. 388; H. A. Miller, *Races, Nations and Classes* (Philadelphia: J. B. Lippincott Co., 1924), pp. 35–37; E. Faris, *op. cit*, p. 320; R. E. Park and E. W. Burgess, *Introduction to the Science of Sociology* (2d ed.; Chicago: University of Chicago, 1924), p. 623.

[13] John Dollard, *op. cit.*, p. 127.

[14] Chicago Commission on Race Relations, *The Negro in Chicago* (Chicago: University of Chicago Press, 1922), pp. 1–71.

[15] E. S. Bogardus, *op. cit.*, p. 161; E. L. Horowitz, "The Development of Attitudes Toward the Negro," *Arch. Psychol.*, 1936, No. 194, 34–35.

[16] *Op. cit.*, p. 220.

[17] Dr. Neal E. Miller of The Institute of Human Relations, Yale University, first impressed this point on me during a discussion and suggested the correlative character of direct and displaced aggression.

[18] *See* H. D. Lasswell, *Propaganda Technique in the World War* (New York: Alfred A. Knopf, 1927), pp. 77–101.

In the case of repressed aggression, the covert responses which may accompany such aggressive tensions are worth noting. In dreams and fantasy, which are mildly expressive acts, the sullen in-grouper may reveal his hostilities. Hostile talk in the form of gossip frequently provides a permitted revenge within in-group life. All of these forms of aggression have satisfaction value and tend to reduce aggressive tension even though ever so slightly.[19] When, however, displaced aggression is permitted to overemphasize an attack which has a reality basis it finds its most easing release. This is the case, for instance, when it is just a Jew and not some other competitor who beats one out in a ticket line, smashes into one's automobile, or is the effective rival in love or status situations. The normal resentment toward an in-grouper is decisively overstressed. Probably also in the case of direct aggression toward an out-grouper, the aggressive response is more fully actualized because of the lack of tender ties and inhibitions toward him. This fact would tend to make prejudice responses more vehement even without the admixture of displaced aggression.

A second factor in our analysis is the problem of how social permission to be aggressive is achieved. We must recall the continuous struggle of the in-group to maintain a unified, cooperative life and to suppress disruptive manifestations of hostility. External taboos are internalized in the form of conscience, and these taboos must be escaped whenever aggressive tendencies are to be indulged. There are two situations which make such expression feasible, and one of them is group rivalry.[20]

When there is an actual threat to the dominance of the in-group, socially legitimated hostilities may appear.[21] This actual threat produces conflict, the interfering or invading group is identified, and the mores ratify defensive measures against the invader. An alternative form of rivalry is the attempt of a sub-group to change its defined status. This maneuver also may call out aggression which will be socially approved. The first case is exemplified by the hostile feelings of California farmers toward Japanese immigrants. "Anyone understands" why this type of conflict should lead to physical reprisals, local measures of limitation, and antagonistic feelings toward Japanese.[22] The attempt of Negroes to change their caste status and participate on equal terms in American life would undoubtedly be greeted by a similar hostility; this phenomenon is most manifest at the present time in the South when the Negroes attempt to claim prerogatives which have not been traditionally assigned to them. Rivalry or conflict occurs, then, over the attempt of an alien or nonprivileged group to claim a share in specific goals or values whether they be economic, prestige or sexual. The in-group accepts rivalry manifestations as legitimate modes of keeping the outsider in his place and of maintaining the undiluted superiority of the prior occupants. In the case of group rivalry, we may note that the object drawing hostility is clearly identified and that this process is one of social conflict.[23] Such conflict processes appear to validate aggressive expression on the part of individuals otherwise bound.

Sheer traditional patterning, without

[19] S. Freud, *The Interpretation of Dreams* (New York: Macmillan Co., 1933), p. 140.

[20] Kimball Young has stressed the factor of economic competition. *See* his *Social Psychology* (New York: F. S. Crofts & Co., 1930), p. 474.

[21] Brown has a creative discussion of "habitat dominance" which should be related to Sumner's conception of the in-group. *See* Fred Brown, "A Sociopsychological Analysis of Race Prejudice," *J. Abnor. & Soc. Psychol.*, 1932, XXVII, 365–367.

[22] J. F. Steiner, *The Japanese Invasion* (Chicago: A. C. McClorg & Co., 1917), pp. 68–92.

[23] R. E. Park and E. W. Burgess, *op cit*, ch. 9, pp. 574–662.

active group rivalry, may also denote a despised group and permit unfriendly manifestations toward its members. This is the case where people are anti-Semitic who have never known any Jews or who "would not like to associate with Negroes," while having no direct conception of what such association would mean. Such traditional patterning in reference to Negroes may be brought about through books which young children read which present "Little Black Sambo" in a ridiculous light, or through characters in radio sketches which show the Negro as a clown or a superstitious coward. The same thing may happen with reference to Jews, even by terms in common speech, as when people say "I tried to jew him down." Such experiences accumulate into patterned conceptions of Negroes and Jews and seem to offer these figures to living individuals as suitable objects of scorn and targets of hostility. The pattern itself is inherited socially and constitutes a break in the dikes built against individual aggressiveness. Such images of Jews and Negroes are created in a way similar to the "out-group image" that has been discussed earlier, although they are, of course, less highly charged. In the case of current German stereotypes, the image of the Jew, however, closely approximates that of the perennial out-grouper, as the *Stürmer* cartoons of Jews show. We must realize, nevertheless, that these experiences with "social patterns" are actual experiences, even though they do not involve direct contact with the object of the prejudice. We can say only that they do seem to permit hostility to be mobilized against certain groups of people. It is probably also true that inherited patterns are records of ancient rivalries and exist as the detritus of former group conflicts. In the case of current American antagonism against the image of the "Turk," one has no difficulty in surmising that the historical conflicts between Mohammedanism and Christianity have given rise to this image, and that the threatening conception of the Turk has been still more recently reinforced by the war-time propaganda against Turkey.

Either rivalry or traditional patterning creates a stereotyped image [24] in the minds of current members of society of a class of individuals who may be more or less painlessly detested. These images usually denote men who are to some degree released from the moral order which binds us and who are feared because "anything" may be expected of them; because they do not accept our mores, they are also regarded as inhuman beings to whom "anything" may be done. It is an effect of this stereotyping to produce the categorical treatment which is given those against whom prejudice is felt; individual discriminations tend to drop out and the differential treatment accorded to in-groupers is omitted. Within our own group we judge people according to their deserts and not according to standard classifications, but not so with the group against whom prejudiced stereotypes exist.

Our third consideration inquires into the means of identifying the object of "race prejudice." [25] It is highly important to be able to tell an out-grouper on sight so that one may not fall into the error of treating an in-group member with unseemly aggression. In-group taboos must be preserved and hence stigmata must be found which clearly designate those-to-be-hated-with-impunity. The pariah must give his warning cry if the Brahman is to preserve his purity from debasing contact. It has been widely noted that aggression may follow various lines of physical and cultural demarcation. Some of these, I hope the

[24] Faris discusses this collective image. *Op. cit.*, p. 321.

[25] This factor is vigorously indicated by Donald Young under the term "visibility." *See* his *American Minority Peoples* (New York: Harper & Brothers, 1932), p. 588.

most important, will be indicated here. Among the most secure marks or signs which will expose a group to prejudice demarcations are race marks. These are physical stigmata such as hair form, skin color, eye fold, lip form, and the like. They are easy to identify and offer less possibility of confusing in-group and out-group members. Prejudice reactions based on these signs can be maintained for long periods of time, since it is simple to keep the out-group at arm's length by prohibiting sex contact or defining mixed bloods as belonging to the outcast group. Frequently also a language, family structure, religion, standard of living, and work habits accompany these physical stigmata and make clear the reason for rivalry, as in the case of the Japanese in California. Since intermarriage tends to introduce such out-groupers into the circle of family relations and therefore into in-group contact, it is necessary to forbid marriage or sex contact if dominance is to be maintained by the superior group. Around the question of sex contact with "racial inferiors" center also rivalries and hostilities which are displaced from the in-group field.

Nations are also social units in terms of which hostile reactions can be expressed. Aggression seems to flow toward the borders of a nation with special readiness. It would seem that this group is the in-group which is especially designated by Sumner's use of the term. The word "nation" also corresponds closely with our use of the term "society" as a more or less self-contained, procreative group often symbolized in our day and age by tariff walls, passports, and the use of a common form of money. Franco-German rivalry has been in recent times a common symbol of such national rivalry, and there seems a special predisposition in these two groups (based on repeated conflict) to view one another as potential frustrators and to "hate" the enemy accordingly. Both real rivalry resulting from expected attack and displaced aggression serve to vitalize the evil image of the other nation. Language, membership in another state, and various traditional beliefs and aspirations identify the out-grouper. It should be noted that these marks, as compared with race marks, are transitory although they are exceedingly durable if viewed from any short-time perspective.

Nationality serves to distinguish still a further kind of out-group. This is the case where we have a differentiated member group existing in a nation, as just defined. The Irish in Britain, the Poles in old Russia, or the Jews in modern* Germany meet these stipulations. Such groups are often marked out by language, sometimes by religion, sometimes by peculiarities of custom or costume, and usually by divergent group memories and aspirations. Hostilities flow across nationality lines also—both in the scorn, derogation and limitation of competition by the superior group and in the resentment and self-affirmation of the minorities. If we call the Jews "Kikes," they also have a derogatory name for us, i.e., *Goyim*. If there is the pressure in our society to exclude Jews from recognition and appropriate social reward, they are, perforce, banded into a minority in which the members render mutual assistance to one another. This latter manifestation shocks many persons who do not need the pattern of anti-Semitism, or who need it only a little as a means of expressing their aggression, and such short-sighted individuals may come to believe that this in-group feeling among Jews is the cause and not a result of the antagonistic feeling against them.

Caste stratification is a form of social grouping along which prejudice reactions also form. I cannot agree with other workers [26] who think of the possibility of a caste system so firmly stabilized that no

* 1938.

[26] R. E. Park and E. W. Burgess, *op. cit.*, pp. 623–4; Faris, *op. cit.*, p. 320.

aggressive manifestations are needed to sustain it. What has been correctly analyzed seems to be that high, overt, physical aggression is not needed to maintain caste relations, but it contempt, loathing, scorn, and patronizing attitude are included as manifestations of hostility, I believe we must consider that caste permits of systematic resentment at least toward lower caste groups by their masters. Caste marks may include specialization of work, barriers to legitimate sexual congress, or unalterable lower status accompanied by a degree of social isolation. Sometimes race signs accompany caste, as in the Negro caste in America and to a certain degree the Hindu caste system, i.e., the lighter the color the higher in general the caste.[27] In Hindu caste, also, arbitrary physical signs accompany high caste membership, i.e., the marks on the Brahman forehead.

Class marks too are forms of differentiation around which group hostilities may cluster. Such marks include standard of living, education, occupation, absence or presence of tendencies toward social mobility, location of residence, absence or presence of capital in large or small amounts, influence of distinguished ancestry and family, and the like. These factors can divide people crudely into class divisions. Stereotyped beliefs often exist as to members of other classes than one's own. For instance, middle-class and lower-class people sometimes believe that all upper-class people hold their position by virtue of superior competitive achievement, that upper-class people are happy and free of anxiety, since money brings these values, or that upper-class people are generally wasteful and not worth their social salt. The latter belief, for example, would tend to increase class antagonism and to direct both rational and displaced hostility toward upper-class people. Upper-class individuals, on the other hand, may come to believe that unemployed lower-class people do not want to work, that they are lazy, that they are on relief because they have refused to save their money, or that they are a poor biological stock which has been defeated in the race for social preeminence. The latter belief, for instance, would justify severe measures toward unemployed lower-class people such as those initiated in New Jersey last year when State relief was abruptly abandoned, certainly a hostile maneuver based on an incorrect perception of the realities of life for the unemployed. Class antagonism seems to be intrinsic to our society through the necessity of competing for an arbitrarily limited social income. Possibly such antagonisms are inevitable between the leaders and the led in any society; they will certainly be greater the tighter is the economy and the greater is the competition for income and status. Along class lines both direct and displaced aggression may flow; those who picture our industrial leaders as monsters of greed and selfishness are undoubtedly creating a stereotyped image which is engorged with displaced aggression, in addition to the direct aggression earned by their failure to lead our economy along more productive ways.

Slave marks also indicate a group differentiation which invites aggressive expression. These signs include an absence of "rights" on the part of the slaves, that is, of equivalence before the mores. Slaves have a categorical low status, can, like lower-caste members, be arbitrarily and aggressively treated, can be compelled to work, can be limited from intermarriage with the dominant group and may receive a small share of social rewards and status for their work. Race marks often accompany slave status, as in the case of our American Negro slaves, and occasionally class marks, such as relegation to menial occupations. Aggression on the part of slaves which would

[27] Personally communicated by Dr. K. T. Behanen of The Institute of Human Relations, Yale University.

tend to change their status is vigorously combated and exists under constant threat of suppression should it appear.

The physical and group differentiations just cited permit both rational and irrational aggression to be manifested; only in some cases can these manifestations be properly known as "race prejudice." "Race prejudice" seems, then, but a footnote to the wider consideration of the circumstances under which aggression may be expressed within a society. We will now turn to a series of concrete situations and use our analysis of the conditions of social hostility to study these situations.

I

First to be examined will be the case of the employing group in Little Steel against the Steel Workers' Organizing Committee of the CIO. The direct aggression mobilized in this conflict was undoubtedly high and expressed by the employees in striking, picketing, denunciations of their opponents, attempts to prevent strikebreakers from entering a plant, and the use of the "Sit-down." Employers, in turn, engaged in attempts to evict "Sit-down" strikers, denunciations of strike leaders and techniques, arousal of public sentiment against the strikers, injunctions against "Sit-downers," the use of professional strikebreakers, and, in some cases, the invocation of aid from the State with its troops and police to break up picketing. Forces were occasionally joined in riotous manifestations where physical fighting broke out. Undoubtedly irrational aggression was present on both sides. Those who referred to Lewis and other labor leaders as "Reds" were plainly venting irrational hostility on them; on the other hand, "the bosses" and "economic royalists" were decidedly partisan definitions of the hard-pressed employers and plant managers who had to "make profits" or get out.

The aggressive expressions already referred to are obviously not manifested because of social tradition but, on the contrary, as a result of inevitable rivalries between class groups in our society. Aggressions by the laboring group were undoubtedly mobilized due to insecurity states caused by past unemployment and wage cuts.

Identification takes place by means of class marks. The status of employer, manager, or minor administrative personnel identified one group; that of organized worker with his union card, slogans and views identified the other.

II

The Jews in America present a contrasting picture falling within the bounds of what is commonly called "race prejudice." Toward Jews both direct and displaced aggression is expressed. That there is displaced aggression is proved by the increased resentment which is felt when any affront is dealt out by a Jew. The nudge which would remind another passenger on a subway that he is stepping on one's foot may become a push if the offender is a Jew. The difference between the nudge and the push measures the increased hostility that may be expressed toward Jews.

Both ordinary rivalry and permissive tradition conspire to bring about hostile reactions toward Jews. In the first place, Jews compete in all three of our class groups and their competition is keenly felt; special skills acquired in the course of their severe competition for existence in western European society have made them particularly apt at the tasks of an interdependent and specialized economic organization. As traders, bankers, professionals, and intellectual people they are able to be very effective rivals for posts of highest skill, income and distinction. Because of their chronic marginal status in western European society, they have also become exceptionally mobile, feeling that only the highest posts and positions of control will give them

even a minimum of security. They have been willing, therefore, by and large to make exceptional sacrifices to achieve pre-eminence, and these sacrifices are the measure of their special effectiveness as rivals. There is also, of course, the permissive tradition for anti-Semitism based on religious grounds. The animosity represented in anti-Semitism is keenly felt in such terms as "Kike" and "Sheeny," and it is not impossible that the term "Christ-killer" may become more familiar to us in this generation than it has been in recent times. It would seem that a rise in anti-Semitism in America is likely because of a steadily shrinking opportunity to earn a living for great numbers of non-Jewish Americans. If the Negroes do not suffice to provide a scapegoat for irrational antagonism, as they have so often in times past, the turn of the Jews may come. It is possible, of course, that a war or series of wars may avert this situation and direct toward an out-group image both the rational and the displaced aggression which is rising against those who seem to be responsible for current straitened conditions of life.

The Jews have maintained to some degree a physical type and are sometimes identifiable by racial signs. However, more common stigmata are those of language and religion. As already noted, Jews often identify themselves by in-group loyalties when they are not especially designated as objects of prejudice.

III

Quite a different problem is presented by the case of American Negro slaves of older time. We have already noted that Park believed race prejudice to be virtually nonexistent under the slave system. In terms of our concepts we would conclude that there was some, although a minimum of physical coercion. The slaves were actually controlled in part by a policing organization which made certain that they did not leave their owners or foregather for antisocial agitation. Even if the whipping of slaves was exceedingly rare, as was apparently the case, there was always the threat of physical punishment in the background, and the possibility even of death for the antisocial Negro. Whether or not we may say that there was "race prejudice" there certainly was some measure of direct aggression applied to the slaves. Displaced aggression seems also to have been present although again in a low degree. There was the humiliating name "nigger," some derogation through obvious patronage and stressing of absolute superiority on the part of whites and in addition, frequently, the attribution of inhuman or brutish qualities to the slaves. These more subtle items must still be judged as aggression since they tended to damage the self-esteem of individual Negroes and to make Negroes seem in a class apart from the order of human beings. Even the occasional favorable comparison of Negroes with lower-class whites only stressed the implication of white superiority, since it was found so surprising that an individual Negro could turn out to be more acceptable than a white man. We should note here that the slave order is accompanied by a high degree of positive rapport based, of course, on the absolute submission and dependence of Negroes. Affection on the part of the white man necessarily went out to the serviceable, loyal, and self-sacrificing Negro whose works were so great and demands so little. Under these circumstances a minimum of force served to keep the status terraces intact.

Such hostility as existed toward Negroes of course was permitted and ratified by the traditional social order. It was occasionally incited directly by slave revolts, but these were sufficiently infrequent and ineffectual not to play a great role. The threat of status change in the future may be seen as a form of anticipated rivalry which justified the policing and punishing techniques employed. The whole state of affairs, on the basis of

which social permission for slavery and aggression toward and derogation of slaves existed, was handed down from a state of group conflict and may be seen as a feature of rivalry between western European and African societies. Here as elsewhere "social permission" is the resultant of actual conflict in the past.

The Negro was, of course, identified by his race marks as well as status marks. Among the latter would be habituation to menial work, imperfect acquisition of American language, morals and customs, and psychological attitudes characteristic of a servile group.

IV

A final case will be that of a group of Germans who invaded a small American industrial town in the early twentieth century. Local whites largely drawn from the surrounding farms manifested considerable direct aggression toward the newcomers. Scornful and derogatory opinions were expressed about these Germans, and the native whites had a satisfying sense of superiority toward them. They were viewed as strangers and their actions suspiciously observed. There was also undoubtedly some displaced hostility. Some of the dissatisfactions which were experienced with the employment system in the town no doubt issued in aggression which was displaced on the foreigners.

The chief element in the permission to be aggressive against the Germans was rivalry for jobs and status in the local woodenware plants. The native whites felt definitely crowded for their jobs by the entering German groups and in case of bad times had a chance to blame the Germans who by their presence provided more competitors for the scarcer jobs. There seemed to be no traditional pattern of prejudice against Germans unless the skeletal suspicion of all outgroupers (always present) be invoked in this place.

The Germans, of course, were clearly recognizable by their nationality marks. They spoke German and attended German Catholic churches: they lived in a single region of the town at first and were more or less isolated from the native Americans, and their language was thought to be funny and was frequently parodied by the English-speaking adults and children in the town. Some of their food preferences, such as their sauerkraut and sausage, were objects of ridicule.

Such marks of identification are transitory as compared with race marks, for instance, but they still do tend to be maintained by the consolidating influence of the language group; singing and athletic societies in this little town testify to this day to the presence of a German cultural stream in the area.

In a previous discussion of "race prejudice" I [28] have offered a theory somewhat similar to the one above except that in the first case I was able to see only the irrational or displaced aggressive components of the reaction. Criticism from other students [29] has compelled me to see the role of actual rivalry in prejudice reactions and to attempt to do it more justice.

At the end, we might ask how such a theory of the role of hostility and fear in social life can be tested. One might indicate the following ways: first, "common experience" which we have by virtue of the fact that we are participating in a society, are a part of its interactive mechanism and ourselves have felt the surges of affect which are here described. In case reference is made to such experience, however, the events must be specifically recorded. Second, special studies already made in the field are of great aid. Horowitz' work as well as the observa-

[28] *Op. cit.*, pp. 439–444.

[29] Dr. R. V. Bowers of the University of Rochester has protested most effectively on this score

tions of Bogardus indicate that no mere rational theory of aggressive responses will serve our purpose. Third, the best source of confirmation must inevitably be the detailed, recorded life history, for it is only with the aid of such documents that one can judge disproportionate aggression accurately and distinguish sharply between direct and displaced hostility. The latter studies await a generation of social psychologists better trained and more patient than our own.

G. Deprivation, Threat, and Frustration *By A. H. Maslow*

It is easy in the discussing of frustration to fall into the error of segmenting the human being. That is to say, there is still a tendency to speak of the mouth or stomach being frustrated, or of a need being frustrated. We must keep in mind constantly the truism that only a whole human being is frustrated, never a part of a human being.

With this in mind, an important distinction becomes apparent, namely the difference between deprivation and threat to the personality. The usual definitions of frustration are in terms simply of not getting what one desires, of interference with a wish or with a gratification. Such a definition fails to make the distinction between a deprivation which is unimportant to the organism (easily substituted for, with few serious aftereffects), and, on the other hand, a deprivation which is at the same time a threat to the personality, that is, to the life goals of the individual, to his defensive system, to his self-esteem, or to his feeling of security. It is our contention that only a threatening deprivation has the multitude of effects (usually undesirable) which are commonly attributed to frustration in general.

A goal-object may have two meanings for the individual. First it has its intrinsic meaning, and secondly, it may have also a secondary, symbolic value. Thus a certain child deprived of an ice cream cone which he wanted may have lost simply an ice cream cone. A second child, however, deprived of an ice cream cone, may have lost not only a sensory gratification, but may also feel deprived of the love of his mother because she refused to buy it for him. For the second boy the ice cream cone not only has an intrinsic value, but may also be the carrier of psychological values. Being deprived merely of ice cream *qua* ice cream probably means very little for a healthy individual, and it is questionable whether it should even be called by the same name, i.e., frustration, which characterizes other more threatening deprivations. It is only when a goal object represents love, prestige, respect, or achievement that being deprived of it will have the bad effects ordinarily attributed to frustration in general.

It is possible to demonstrate very clearly this twofold meaning of an object in certain groups of animals and in certain situations. For instance, it has been shown that when two monkeys are in a dominance-subordination relationship a piece of food is (1) an appeaser of hunger and also (2) a symbol of dominance status. Thus if the subordinate animal attempts to pick up food, he will at once be attacked by the dominant animal. If, however, he can deprive the food of its symbolic dominance value, then his dominator allows him to eat it. This he can do very easily by a gesture of obeisance, i.e., presentation as he approaches the food; this is as if to say, "I want this food only to still hunger, I do not want

From *Psychological Review*, 1941, XLVIII, 364–366. Reprinted by permission of the author and the American Psychological Association, Inc.

to challenge your dominance. I readily concede your dominance." In the same way we may take a criticism from a friend in two different ways. Ordinarily the average person will respond by feeling attacked and threatened (which is fair enough because so frequently criticism is an attack). He therefore bristles and becomes angry in response. But if he is assured that this criticism is not an attack or a rejection of himself, he will then not only listen to the criticism, but possibly even be grateful for it. Thus, if he has already had thousands of proofs that his friend loves him and respects him, the criticism represents only criticism; it does not also represent an attack or threat.

Neglect of this distinction has created a great deal of unnecessary turmoil in psychoanalytic circles. An ever-recurring question is: Does sexual deprivation inevitably give rise to all or any of the many effects of frustration, e.g., aggression, sublimation, etc. It is now well known that many cases are found in which celibacy has no psychopathological effects. In many other cases, however, it has many bad effects. What factor determines which shall be the result? Clinical work with nonneurotic people gives the clear answer that sexual deprivation becomes pathogenic in a severe sense only when it is felt by the individual to represent rejection by the opposite sex, inferiority, lack of worth, lack of respect, or isolation. Sexual deprivation can be borne with relative ease by individuals for whom it has no such implications. (Of course, there will probably be what Rosenzweig calls need-persistive reactions, but these are not necessarily pathological.)

The unavoidable deprivations in childhood are also ordinarily thought of as frustrating. Weaning, elimination control, learning to walk, in fact every new level of adjustment, is conceived to be achieved by forceable pushing of the child. Here, too, the differentiation between mere deprivation and threat to the personality enjoins caution upon us. Observations of children who are completely assured of the love and respect of their parents have shown that deprivation can sometimes be borne with astonishing ease. There are few frustration effects if these deprivations are not conceived by the child to be threatening to his fundamental personality, to his main life goals, or needs.

From this point of view, it follows that the phenomenon of threatening frustration is closely allied to other threat situations much more than it is to mere deprivation. The classic effects of frustration are also found frequently to be a consequence of other types of threat—traumatization, conflict, rejection, severe illness, actual physical threat, imminence of death, humiliation, isolation, or loss of prestige.

This leads us to our final hypothesis, that perhaps frustration as a single concept is less useful than the two concepts which crosscut it, (1) deprivation, and (2) threat to the personality. Deprivation implies much less than is ordinarily implied by the concept of frustration; threat implies much more.

2.

EXPERIMENTAL STUDIES OF FRUSTRATION IN YOUNG CHILDREN

By Roger G. Barker, Tamara Dembo, Kurt Lewin, and M. Erik Wright

Frustration occurs when an episode of behavior is interrupted before its completion, i.e., before the goal appropriate to the motivating state of the individual is reached. It is well established that frustration has widely ramifying effects upon behavior; the behaving person is not like a rolling billiard ball that remains motionless when its movement is stopped. However, what these effects are and how they are produced have not yet been determined. To frustration has been attributed most of what is valued and deplored in individual and group behavior: delinquency, neurosis, war, art, character, religion. This, however, is speculation. It is of greatest importance that these questions be removed from the realm of speculation, that the conditions of frustration be conceptualized, that its degree and effects be measured and that systematic experimental studies be made. It is with these problems that the studies here reported are concerned. They constitute an effort to measure the degree of frustration and its effects upon intellectual and emotional behavior and social interaction.

This has been done by comparing the behavior of children in a nonfrustrating play situation with their behavior in a frustrating play situation. Children were observed on two occasions: first, in a standardized playroom under conditions of unrestricted free play; second, in the same room with the same toys, but with a number of more attractive, but inaccessible, toys present. The latter were provided by replacing a wall of the original room with a wire-net partition through which the subjects could easily see the fine toys but through which they could not move. The subjects were children who attended the preschool laboratories of the Iowa Child Welfare Research Station. They ranged in age from 2 to 6 years.

Two series of experiments were performed. In the first series, by Barker, Dembo, and Lewin, 30 children were studied individually with the objective of determining some of the effects of frustration on intellectual and emotional behavior. In the second series, by Wright, 78 entirely different children were taken in pairs with the main emphasis upon the effects of frustration on social behavior. The second series of experiments served, also, as a check upon the first so far as effects on intelligence and emotion were concerned.

The Nonfrustrating Situation. On the floor of the experimental room in the nonfrustrating play situation there were three squares of paper, each 24 by 24 inches. A set of standardized play materials was placed on each square. After entering the experimental room with the child or pair of children, the experimenter demonstrated the toys and gave complete freedom to play. The child (or children) was left to play for a 30-minute period. During this time the experimenter, as if occupied with his own

Prepared by the authors from data more fully reported in (1) R. G. Barker, T. Dembo, and K. Lewin, "Frustration and Regression: An Experiment with Young Children," *University of Iowa Studies in Child Welfare*, 1941, XVIII, No. 1; (2) M. E. Wright, "Constructiveness of Play as Affected by Group Organization and Frustration," *Character and Personality*, 1942, XI, 40–49; and (3) M. E. Wright, "The Influence of Frustration upon the Social Relations of Young Children," *ibid.*, 1943, XII, 111–122.

work, sat at his table in the corner and made records of the behavior occurring.

The Frustrating Situation. Three parts of the frustration experiment can be distinguished in the temporal order of their occurrence: the prefrustration period, the frustration period and the post-frustration period.

In the prefrustration period the dividing partition was lifted so that the room was twice the size it had been in the nonfrustrating situation. The squares were in their places, but all toys except the crayons and paper had been incorporated into an elaborate and attractive set of toys in the part of the room that had been behind the partition. In all cases the children showed great interest in the new toys and at once started to investigate them. Each child was left entirely free to explore and play as he wished. If, after several minutes, the child had played with only a limited number of toys, the experimenter demonstrated the others. The experimenter returned to his place and waited until the child had become thoroughly involved in play; this took from 5 to 15 minutes. The prefrustration period was designed to develop highly desirable goals for the child which he could later be prevented from reaching. This was a prerequisite to creating frustration.

The transition from prefrustration to frustration was made in the following way. The experimenter collected in a basket all the play materials which had been used in the nonfrustrating free-play session and distributed them, as before, on the squares of paper. He then approached the child and said, "Now let's play at the other end," pointing to the "old" part of the room. The child went or was led and the experimenter lowered the wire partition and fastened it by means of a large padlock. The part of the room containing the new toys was now physically inaccessible, but it was visible through the wire-net partition. With the lowering of the partition the frustration period began. This part of the experiment was conducted exactly as was the nonfrustrating session. The experimenter wrote at his table, leaving the child completely free to play or not as he desired. The child's questions were answered, but the experimenter remained aloof from the situation in as natural a manner as possible.

Thirty minutes after the lowering of the partition, the experimenter suggested that it was time to leave. After the experimenter had made sure that the child was willing to leave, the partition was lifted. Usually the child was pleasantly surprised and, forgetting his desire to leave, joyfully hurried over to the fine toys. If the child did not return spontaneously, the experimenter suggested his doing so. The lifting of the partition at the end of the frustration period was designed to satisfy the desire of the child to play with the toys and to obviate any undesirable after-effects. The child was allowed to play until he was ready to leave.

Both the nonfrustrating and frustrating situations produced two general kinds of behavior: occupation with accessible goals, and activities in the direction of inaccessible goals. We shall call the first *free activities* and the second *barrier and escape behavior*. Playing with the available toys, turning on the light, and talking with each other or with the experimenter are examples of free activities. Trying to leave the experimental situation and attempting to reach the inaccessible toys behind the barrier or talking about them are examples of barrier and escape behavior.

A subject could be involved in more than one activity simultaneously, e.g., he might ask to have the barrier raised while swinging the fish line. In these cases we speak of *overlapping situations*. A type of overlapping situation of special importance occurred when play and nonplay activities took place simultaneously. We have called this *secondary play*. *Pri-*

mary play, on the other hand, occurred when the subject seemed to give play his complete attention.

Sample Record. A part of a record is given below to acquaint the reader with the sequence and content of the course of events. This is the type of material with which we had to work.

Subject #22 is a girl fifty-three months old. Her I.Q. is 122. Each unit of action is numbered consecutively. At the end of each unit the length in seconds and the constructiveness rating are given. Constructiveness rating is discussed in the section immediately following.

Nonfrustrating Situation

1. Subject: "Here," to the experimenter, "you make me something from this clay." She takes the clay to Square 1 and asks, "Where are the other things?" (Referring to toys present in another experiment.) "I want you to play with me." The experimenter continues recording. (45; 2)

2. Subject throws clay onto Square 2. "This is an elephant." Then, finding a small peg on the floor, "Look what I found. I'll put it at his eyes." Looks at it. Makes elephant sit up. (70; 6)

3. Subject starts to draw. "I'm going to draw a picture. Do you know what I'm going to draw? That will be a house. That is where you go in." (45; 7)

4. Someone moves in another room. Subject: "Who is that?" (10)

5. Subject goes to Square 1, shakes phone, and examines it. Manipulates phone, pretends conversation but does not use words. "How do . . ." are the only words that experimenter can distinguish. (30; 5)

6. Subject sits on chair and looks around. "I guess I'll sit here and iron." Repeats, then says gaily, "See me iron." (45; 5)

Frustrating Situation

1. Subject watches experimenter lower the partition. She asks, "I will not play on the other side again?" Experimenter answers, "You can play here now." Subject faces the experimenter for about 15 second with hands behind her neck. (25)

2. Subject looks around. (5)

3. Subject goes to Square 3 and examines sailboat and fish pole. (15; 2)

4. Subject stands at Square 3 and looks at barrier. (5)

5. Turning to the play material on Square 3, Subject takes the fish line and dangles it about sailboat. (20; 2)

6. Subject goes to the barrier and reaches through the meshes of the screen. (5)

7. Subject turns around, looks at the experimenter, laughs as she does so. (15)

8. Subject goes to Square 3, takes the fish pole, and returns to the barrier. She asks, "When are we going to play on that side?" Experimenter does not answer. Then, in putting the fish pole through the barrier, Subject says, "I guess I'll just put this clear back." She laughs and says, "Out it comes!" Takes pole out again. (35; 2)

9. Subject walks to experimenter's table. (10)

10. Subject goes to Square 2 and manipulates clay. (10; 2)

11. From Square 2 she looks at the objects behind the barrier and says, "I do like the balloon." Then she asks, "Who put that house there?" Experimenter answers, "Some of my friends." (35)

Constructiveness of Play. From this example, the reader will gain an impression of the richness of the play which occurred. It is possible to use such manifold material for many purposes. In the first experiments we were most interested in phases of the play related to the intellectual aspects of the child's behavior. For this purpose we made an analysis of the play activities on the basis of their constructiveness. One can distinguish variations in the type of play on a continuum ranging from rather primitive, simple, little-structured activities to elaborate, imaginative, highly developed play. We speak in the former case of low constructiveness; in the latter, of high constructiveness. In our first experiment, constructiveness was rated on a 7-point scale (2 to 8) devised to be applicable to play with all the toys. Examples of its use are given in the preceding sample record. The mean constructiveness of play for an experimental session was determined by assigning the proper scale value to each play unit, mul-

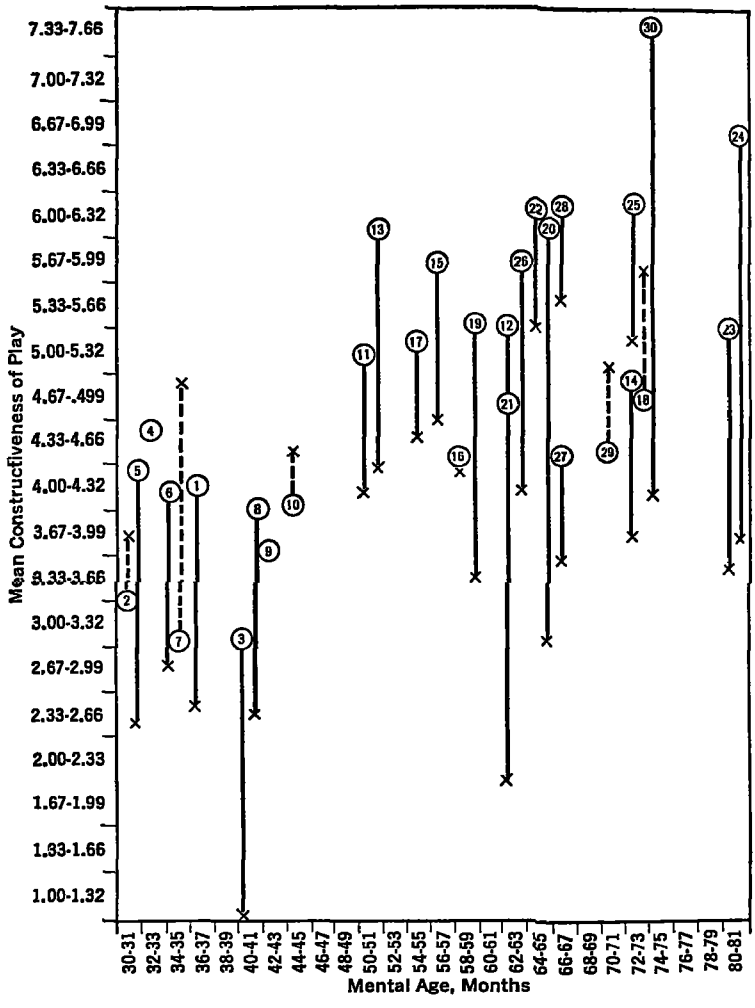


FIG. 1. The relation between mean constructiveness of play and mental age in the nonfrustrating and the frustrating play situations. (1) The mean constructiveness of primary and secondary play in the nonfrustrating situation is indicated by circles. (2) The mean constructiveness of play in the frustrating situation is indicated by crosses. (3) Change in the constructiveness of play from the nonfrustrating to the frustrating situation is designated by solid lines when constructiveness decreases in frustration, and by broken lines when it increases. The absence of a cross indicates no change in constructiveness

tiplying by the duration of the unit, summing these values for the whole record, and dividing by the total time of play during the session. The mean constructiveness ratings had an estimated reliability coefficient of .88. Their validity as an indicator of intellectual level is indicated by a correlation with mental age of .73.

RESULTS

Average Constructiveness of Play in the Nonfrustrating and Frustrating Situations. The mean constructiveness of the

play of each child in the nonfrustrating and frustrating situations is shown in the correlation chart. These data include all play, both primary and secondary. The mean constructiveness of play in the nonfrustrating situation is 4.99 and in the frustrating situation 3.94. The mean regression in constructiveness of play is 4.39 times its standard error. Stated in terms of mental-age equivalents, i.e., in terms of the regression of constructiveness upon mental age, the mean regression amounts to 17.3 months of mental age. Twenty-two of the subjects regressed in the constructiveness of their play, three did not change, and with five subjects the constructiveness of play increased in frustration.

These data establish rather definitely the fact that a frustrating situation of the kind considered here reduces, on the average, the constructiveness of play below the level upon which it normally occurs in a nonfrustrating, free-play situation. Further analysis showed that regression in the constructiveness of play occurred when only primary play and only play units of the same length in the nonfrustrating and frustrating situations were compared.

These results indicate that frustration not only affects actions involved in achieving inaccessible goals, such as attempts to find roundabout routes or aggression against physical or social barriers, but that it may also affect behavior not directly frustrated or involved in overcoming the frustration. The findings show the importance of the total situation for promoting or hindering a child's creative achievement, and they suggest that the level of intellectual functioning is dependent upon the immediately existing situation.

Measurement of Strength of Frustration. The technical arrangements of the experiment were planned to create frustration and nonfrustration. Inevitably, these results were not secured in all cases, inasmuch as we had control over only the immediate, experimental situation and not over the expectations and attitudes which the children brought to the experiment. In some instances frustration occurred in the nonfrustration situation and in others there was no frustration in the frustration situation. In addition, all degrees of strength of frustration occurred. Thus far in the analysis we have proceeded as if the technical arrangements had functioned with all subjects as was intended. The data have been classified according to the intention of the experimenters rather than according to the psychological realities of the situations for the subjects. We turn now to an analysis of some quantitative differences in the dynamic properties of the existing psychological situations.

We have taken as a measure of strength of frustration the proportion of the total experimental period occupied by barrier and escape behavior. Inasmuch as we are here concerned with the *changes* in strength of frustration from the nonfrustration to the frustration situations, we have limited ourselves to a consideration of the *difference* in the amount of time occupied with barrier and escape actions in the two settings. Using this difference as a measure of increase in frustration, it turned out that 20 subjects were relatively strongly frustrated and 10 subjects relatively weakly frustrated.

Considering these two groups of subjects, we find that there is a highly significant reduction in the constructiveness of play in the case of the strongly frustrated subjects amounting to $1.46 \pm .15$ constructiveness points when both primary and secondary play are considered, and $1.11 \pm .15$ constructiveness points when primary play alone is included. The first is equivalent to a regression of twenty-four months' mental age, the latter to a regression of nineteen months' mental age. With the weakly frustrated subjects, on the other hand,

there is a small and not statistically significant reduction in constructiveness, amounting to 0.23 constructiveness points for primary and secondary play and 0.12 points for primary play. All subjects showing an increase in constructiveness of play in frustration fall in the weakly frustrated group.

From these results it is clear that regression in level of intellectual functioning is determined by dynamic situational factors that are subject to measurement.

Emotion. *Pari passu* with the shift in constructiveness of play there occurred a change in emotional expression. In frustration there was a marked decrease in the happiness of the mood (e.g., less laughing, smiling and gleeful singing), there was an increase in motor restlessness and hypertension (e.g., more loud singing and talking, restless actions, stuttering, and thumb sucking); and there was an increase in aggressiveness (e.g., more hitting, kicking, breaking, and destroying). The changes were greater with the strongly frustrated than with the weakly frustrated subjects.

Social Interaction in the Nonfrustrating and Frustrating Situation. In order to describe the changes in social interaction from nonfrustration to frustration, it was first necessary to distinguish various types of social behavior. Five main categories of social interaction were differentiated: *Cooperative actions* included those in which both children strove towards a common goal and helped each other to achieve that goal. *Social parallel* behavior covered activities in which both children, separately, pursued almost the same goals but watched each other closely. *Sociable* actions were those in which the goal seemed to be maintenance of the social contact itself. *Social matter-of-fact* interactions were impersonal contacts made primarily for information about ownership or other property rights. *Conflict* actions occurred when children were aggressive towards each other; acts of aggression ranged in intensity from verbal teasing to physical violence.

The most typical form of social interaction in the nonfrustration situation was friendly in character; 67.2 percent of all social interaction was spent either in cooperative or sociable behavior. However, 14.9 percent of the time was spent in inter-child conflict.

There were two important shifts in social behavior from nonfrustration to frustration: Cooperative behavior increased from 38.2 percent to 50.4 percent of total interaction, and social conflict decreased from 14.9 percent to 6.9 percent. These changes are significant at the 2 percent and 1 percent levels, respectively. There were no statistically significant changes in the amount of time spent in sociable, social parallel, or matter-of-fact social interactions. The two shifts which occurred point toward increased interdependence and unity under the influence of frustration.

Strength of Friendship and Social Interaction. On the basis of their behavior in the nursery school, 18 of the pairs of subjects were judged to be strong friends and 21 weak friends. The strong and weak friends resembled each other very closely in their social interaction in the nonfrustrating situation. However, the changes in social behavior in frustration were more marked for the strong friends than for the weak friends. Cooperativeness increased and conflict decreased significantly for these subjects while they did not change significantly for the weak friends. When the weak and strong friends were compared with each other in the frustrating situation the strong friends were found to exhibit significantly more cooperative behavior and significantly less conflict behavior than the weak friends.

Under the relatively calm, stable conditions with low level of emotional tension that existed in the nonfrustrating situation, the social behavior of strong and weak friends was not observably

TABLE 1

PERCENT OF HOSTILE AND FRIENDLY BEHAVIOR TOWARD THE EXPERIMENTER WHICH OCCURRED AS SOCIAL AND SOLITARY ACTION

Situation	Hostile		Friendly	
	Social	Solitary	Social	Solitary
Nonfrustration	99	1	26	74
Frustration	82	18	51	49

different. When the environmental surroundings became precarious, however, when frustration occurred, and when there was a heightening of emotional tension, the influence of the pre-existing friendship relation became apparent. A greater cohesiveness and unity tended to occur under stress with the strong friends than with the weak friends.

In nonfrustration, the contacts with the experimenter were predominantly friendly: 80 percent of all experimenter-directed behavior was of this nature. A marked change took place in frustration. There was a 30 percent rise in the amount of hostile action towards the experimenter and a 34 percent decrease in friendly approaches. Although friendly contacts were still more frequent than hostile ones, the situation in frustration could no longer be characterized as predominantly friendly. It will be noted from the tabulation above that hostile actions against the experimenter were predominantly social in character in both nonfrustration and frustration, while friendly actions were not predominantly social. This suggests that the children may have felt more powerful and able to cope with hostile forces when in social contact than when alone. This interpretation is supported by the fact that in nonfrustration there was a great amount of solitary, friendly contact with the experimenter, while in the frustrating situation, where the power of the experimenter had become much stronger, the proportion of friendly, solitary actions toward the experimenter decreased, and the proportion of friendly social action increased. It appears that under frustration the children needed social support to make even a friendly approach to the powerful, implicitly hostile adult.

In general, only when the individuals combined did they feel strong enough to attack the superior adult power. We should expect that the stronger and more cohesive the group, the more capable they would feel of challenging the power of the experimenter. This interpretation is substantiated by the data on hostile actions toward the experimenter in the frustrating situation. The strong friends showed more hostile action against the experimenter than did the weak friends (47 percent and 31 percent respectively) and the difference was even more marked when direct physical attack on the experimenter was considered: 26 percent for the strong friends and 4 percent for the weak friends. Furthermore, only the strong friends went so far as to hit the experimenter with blocks, tear his records, throw him off his chair, scratch at him, etc. The weak friends stopped at touching the experimenter while calling him names.

DISCUSSION

The main findings of the studies reported may be summarized as follows: Frustration, as it operated in these experiments, resulted in an average regression in the level of intellectual functioning, in increased unhappiness, restless-

ness, and destructiveness, in increased intra-group unity, and in increased out-group aggression. The amount of intellectual regression and the amount of increase in negative emotionality were positively related to strength of frustration. The degree of intra-group unity and of out-group aggression were positively related to strength of friendship. These findings present important and difficult problems for social-psychological theories.

Theory in science has two main functions: to account for that which is known, and to point the way to new knowledge. It does this by formulating hypotheses as to the essential nature of the phenomenon under consideration. The fruitfulness of a theory lies in the unknown facts and relations it envisions which can then be tested, usually by experiments. A fruitful theory gives birth, as it were, to new knowledge which is then independent of its theoretical ancestry.

The main results of the present experiments were predicted on the basis of a theory. Originally the experiments were designed to test the hypothesis that strong frustration causes tension which leads to emotionality and restlessness, to de-differentiation of the person, and hence to behavioral regression. These results were obtained. It is probable that not only the changes in the constructiveness of play, but also the greater cohesiveness of the strong friends under frustration can be interpreted as regression. In the nonfrustrating situation the social interactions of the strong and the weak friends did not differ, but under the tensions created by frustration the previously existing, fundamental structure of interpersonal relations was revealed. De-differentiation of the person from diffusing tension would be expected to reduce the variety and complexity of both intellectual and social behavior and leave the strongest structures intact. In the case of the strong friends, this basic structure was one that led to a friendly, cooperative interrelation.

However, the experiments suggest that other factors probably enter also. In the frustrating situation, the subject's future time perspective and security were shattered by the superior power of the experimenter. This could easily have two results: first, to interfere with long-range planning, and this would certainly result in lowered constructiveness of play; second, to lead to a mobilization of power by the subject directed at increasing his security. Counter-aggression on the part of the subjects was clear in the shift towards hostility in their relations with the experimenter. It seems likely that the greater cohesiveness occurring in the frustrating situation is one aspect of the efforts of the subjects to increase their power *vis-à-vis* the experimenter. This is particularly likely in view of the predominantly social character of all hostile actions against the experimenter, and the greater hostility of the strong friends.

3.

A STUDY OF CHILDREN'S REACTIONS TO FAILURE AND AN EXPERIMENTAL ATTEMPT TO MODIFY THEM

By Mary E. Keister and Ruth Updegraff

Psychologists and educators believe that it is important for an individual to respond adequately in situations involving failure or great difficulty. After his first attempt meets failure, the individual's subsequent, possibly characteristic, reaction is related not only to his emotional adjustment but also to his ability to learn and to profit by experience.

It is natural for a young child to be confronted with many situations which are not readily resolved. Moreover, in his attempts to meet and overcome difficulties as they arise lie the child's opportunities to learn. In general, mental hygienists and educators have considered it desirable for a child to attack a difficult problem with composure, to try out one possibility after another in an attempt to reach a solution. It is usually considered that he is not meeting the situation desirably if he retreats from the problem, if he rationalizes, if he leans heavily on an adult for assistance, if he attacks the problem with such emotional accompaniments as crying, sulking, and tantrums.

Even the most casual observation of young children reveals wide differences in such responses. In the face of a difficult situation, some children make attempts at their own solution, intently and without emotion. There are others, however, who under many circumstances, immediately ask for the help of an adult or another child; some retreat from the scene of action when they discover difficulty; some cry or become angry; some rationalize.

Given, then, a variability from child to child (and in some cases the occurrence of modes of behavior which are undesirable from the standpoint of the future as well as of the present), the problem becomes one of discovering the existence of an undesirable pattern and of modifying that pattern if possible. Such was the problem of this study, the purpose of which may be summarized as follows:

1. To devise tests by means of which one may discover what responses a child of preschool age gives when faced with failure.
2. To select a group of children evidencing undesirable modes of response.
3. To attempt to modify, by special help or individual training, the responses of the children in this group.

Mental hygienists have employed the concept of failure in two ways. They have used it in connection with a situation which is ultimately impossible for the individual to overcome because of his own incapacity; under such circumstances it is important for him to realize this fact and adjust himself to the idea of the impossibility. In the second sense, failure has been thought of as a step in the process of solving a problem, as involved in the individual's working his way out of a difficulty. It is with behavior of the latter type that this study is concerned. Failure, as defined here, is the child's lack of immediate success following an attempt to contend with a situation, the situation being one in which he sees some relation to himself as an instrument of his own success or failure.

From *Child Development*, 1937, VIII, 241–248. Reprinted by permission of the authors and the publisher. A more detailed account of this study may be found in Ruth Updegraff, Mary Elizabeth Keister, Louise Heiliger, and others, "Studies in Preschool Education, I," *University of Iowa Studies in Child Welfare*, 1937, XIII, No. 4.

A preliminary survey of suitable approaches indicated the inapplicability of the observation method, at least in the beginning stages of the study. Not only did it soon become apparent that failure situations occurred in the nursery school with such infrequency that the time-sampling method was too extensive, but also controls of motivation and of the difficulty of the tasks were lacking. Accordingly, plans were made for presenting failure in experimental situations. The decision was made to confront the child with one situation somewhat in the form of a puzzle, with another which challenged his physical strength, and with a third which offered social obstacles. Among the criteria for setting up the experiments were the following:

1. They must be possible of accomplishment and yet of such difficulty that the child does not succeed immediately.

2. They must provide situations which are natural, in the sense that the difficulties are not obviously or forcibly imposed.

3. The average child should be able to see for himself that he has failed and to see in the situation some relation to himself as an instrument of his success or failure.

As a result of preliminary study, two test situations were believed adequate for use. The first, the puzzle box test, confronted the subject with a small, lidded, colored box, 9 by 7 by 1½ inches. The box being opened, it was found to have a false bottom within ¼ inch from the top. On this lay ten small, colored figures, of irregular shape, ½ inch thick, representing various objects of interest to children, such as a sailboat and an engine. Because of their form they fitted rather closely into the available space. The experimenter then removed the figures and gave the test instructions which invited the child to put the blocks into the box so that the lid could go down again. In spite of the fact that there were several ways in which the blocks could be fitted into the space, the task was quite a difficult one to complete in the fifteen minutes allowed. There was no question of its being an interesting one to children.

TABLE 1

MEAN NUMBER OF MINUTES DURING WHICH RESPONSES OCCURRED DURING PUZZLE BOX TEST N = 41. [a]

Behavior	Mean	Standard deviation
No overt attempt	2.2	3.2
Attempts to solve alone	11.1	4.2
Asks another to solve	1.2	2.3
Asks help	1.5	2.1
Destructive behavior	.1	.5
Rationalizes	1.2	1.8
Interest	10.2	4.7
No emotional manifestations	1.6	2.9
Indifference	.2	1.4
Smiles	.2	.9
Laughs	.1	.2
Sulks	.2	.6
Cries	.3	1.2
Whines	.8	2.0
Yells	.1	.4
Motor manifestations of anger	.04	.3

[a] Mean length of experimental period: 13.3 minutes.

The weighted box test consisted of a five-sided box, weighted at the ends and through the middle with from 60 to 90 pounds of iron weights. These weights were adjustable. The box was placed in the middle of a room upside down over a group of attractive toys. When the subject entered, the box was raised slightly, then lowered. Instructions indicated that the toys could be played with if the box could be lifted in order to obtain them. Ten minutes was the time allowed.

The same scheme for recording behavior, a system of controlled observation with time divisions of minutes, was used for both tests. The type of behavior observed is indicated in the tables.

The subjects in this study, 82 children (38 boys and 44 girls) aged three to six years, were enrolled in the preschool laboratories of the Iowa Child Welfare Research Station. The mean intelligence quotient was 122. Because the tests evidenced no statistically significant age differences, marked individual differences being apparent at all ages, the data have not been classified into age groups. Comparative frequency of various types of responses in the two tests is indicated in Tables 1 and 2. In each test the most frequent response of the group as a whole was "attempts to solve alone" although "interest" ran a close second. That requests for either partial or complete help and rationalizations were more common than disgruntled emotional responses proved to be the case.

Inasmuch as it was the purpose of these tests to differentiate between those subjects giving undesirable or immature responses and those responding more desirably, the extent to which this end was achieved was first to be determined. To describe the process briefly, certain objective criteria were set up in terms of test behavior. Five kinds of behavior occurring for at least a minimum amount of time were listed and definitely stated quantitatively. If a child's behavior fell into two or more of these classifications on either or both tests, he was judged to have given an immature response. In brief, these five types were as follows: (1) giving up attempts to solve the puzzle box in less than five minutes or to solve the weighted box in less than two minutes, (2) requesting help during more than one half the total time of the test, (3) manifesting destructive behavior, (4) making more than two rationalizations, (5) evidencing exaggerated emotional responses.

Analysis of the test records showed a total of fifteen children (18 percent) who fell into the immature group.

The diagnostic value of the tests is illustrated by contrasting frequencies of behavior as shown in Tables 3 and 4, in which it is apparent that real differences do exist between the groups as classified by this means.

TABLE 2

MEAN NUMBER OF MINUTES DURING WHICH RESPONSES OCCURRED DURING WEIGHTED BOX TEST (N = 74) [a]

Behavior	Mean	Standard deviation
No overt attempt	3.4	2.8
Attempts to solve alone	5.7	2.7
Asks another to solve	.4	3.6
Asks help	1.1	1.9
Rationalizes	1.0	1.5
Interest	5.7	3.2
No emotional manifestations	2.1	2.6
Indifference	.1	.9
Smiles	.3	.8
Laughs	.1	.4
Sulks	.2	1.0
Cries	.3	.9
Whines	.7	1.7

[a] Mean length of experimental period: 9.1 minutes.

The next step in the study was the training program. In this, twelve out of the fifteen children participated.

The basic philosophy underlying the training assumed that children can learn to meet difficulty in a controlled manner and acceptably if they know from experience what type of behavior is most likely to bring success or satisfaction. It was the aim of the training program to raise the responses of the immature group nearer to the level of desirability. Specifically, in the training an attempt was made to teach the child to persist longer in the face of difficult tasks (which were, however, not impossible ones), to teach him to depend less upon an adult for help, and to attack a problem and see it through with some composure.

The method of training consisted in introducing the child to a series of prob-

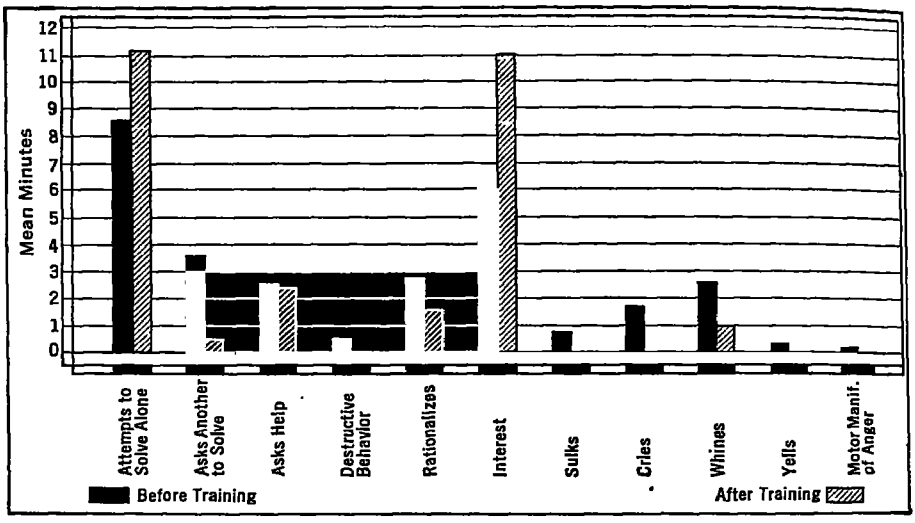


FIG. 1. Responses of trained group on puzzle box test before and after training.

lems which grew progressively more difficult as the program of training proceeded. The problem situations reflected the following criteria:

1. The tasks should be graded in difficulty so that the child experiences success in the earlier ones and gradually works up to problems which are difficult for him.

2. The later tasks must be of such difficulty that the child does not succeed immediately but is forced to persevere, to continue to try if he is to attain success.

3. The child must be able to see his progress and previous successes.

In describing the two training situations briefly[1] it may be said that they were similar in type but differed in the specific materials used. For the first, four picture-puzzle books were prepared, each one in the series more difficult than the one preceding and each one of graduated difficulty from beginning to end. For these, interesting, colorful and appropriate story books were cut up. The pictures were mounted on 4-ply wood, varnished, cut into puzzles, and the book was rebound on loose rings. The experimenter read the story to the child. As she reached a part illustrated by one of the pictures, she stopped for him to put the puzzle together before continuing the story. After the first picture was completed she covered it with cellophane, so that both she and the child could refer to it later, and resumed the story until the next picture. Each book contained four to six pictures.

In the second situation a "block boy" was built. Copied from a drawn pattern hung on the wall, he was to be made of colored blocks placed upon each other so that having attained first feet, then legs then trunk and arms, then head, he stood approximately three feet high, a somewhat precarious figure and a frequently exasperatingly unsteady one. Usually several attempts were necessary in order to complete him. After a successful production his builder had the task of devising a hat from a wide variety of materials provided.

The entire program of training was

[1] Detailed descriptions of all the materials used in this study may be obtained from the Iowa Child Welfare Research Station, Iowa City, Iowa.

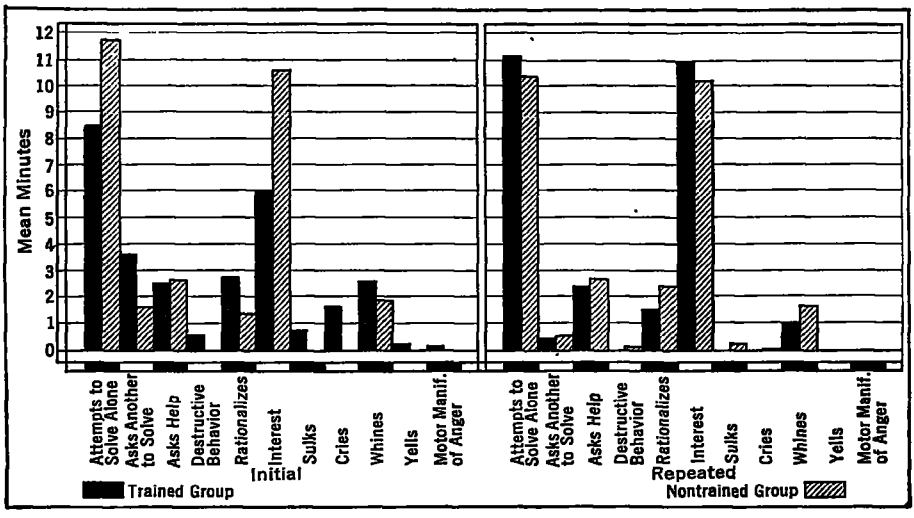


FIG. 2. Responses of trained and untrained groups on puzzle box test.

handled by one person. Training periods varied in length from eight to thirty-three minutes, depending largely upon the difficulty of the tasks and the child's behavior. To subject the twelve children to all of the training took approximately six weeks.

Behavior during the training program underwent a gradual improvement as is shown by both objective and subjective estimate. In order to study post-training behavior objectively, two approaches were utilized; first, retests by means of a similar but not identical puzzle box were given the trained subjects (Fig. 1); second, also retested were an equal number of children, not in the trained group, who during the initial tests had shown some undesirable behavior (Fig. 2).

It is evident from a study of Figure 1 that the behavior of the children after training was remarkably different from their behavior prior to training. Differences in the three items *attempts to solve alone*, *interest*, and *cries* are statistically significant. Excepting in the case of the item *asks help*, the remaining differences closely approximate significance. The differences were in form of the response given in the retest and indicate that a reasonable improvement was effected in the trained group. The exaggerated emotional responses of sulking and crying dropped out entirely in this group.

Figure 2 concerns responses of the trained and the compared nontrained group before and after training. The two groups differed in the responses *no overt attempt*, *attempts to solve alone*, *interest*, *sulks*, and *cries*. All of the differences were in favor of the trained subjects in spite of the fact that previous to training the difference lay in the opposite direction.

The results of this study, hopeful as they are, must be interpreted in the light of the specific conditions. The entire program was carried out by the experimenter, who also gave the retests. Further study, at present underway, must determine the extent to which the more desirable behavior occurs in other situations and with other persons. There is evidence that behavior of children in difficulties has been similar in two test situations; it would be valuable to make observations in other situations and under circumstances of a more social nature. Probably the most important contribution of the present study is its indication of the marked effect of this train-

TABLE 3

MEAN AND STANDARD DEVIATION OF RESPONSES IN MINUTES FOR TWO GROUPS OF SUBJECTS ON PUZZLE BOX TEST

Behavior	Group showing undesirable or immature response (N = 15)		Remainder of total group (N = 54)	
	Mean	Standard deviation	Mean	Standard deviation
No overt attempt	6.0	3.7	1.6	2.3
Attempts to solve alone	8.5	4.2	13.0	3.0
Asks another to solve	3.6	3.4	.8	1.6
Asks help	2.5	2.4	1.5	2.1
Destructive behavior	.6	1.1		
Rationalizes	2.8	2.5	1.0	1.4
Interest	6.0	3.8	12.4	3.9
No emotional manifestations	2.5	2.4	1.7	3.2
Sulks	.8	1.3		
Cries	1.7	2.4		
Whines	2.6	2.9	.5	1.5
Yells	.3	.8		
Motor manifestations of anger	.2	.5		

TABLE 4

MEAN AND STANDARD DEVIATION OF RESPONSES IN MINUTES FOR TWO GROUPS OF SUBJECTS ON WEIGHTED BOX TEST

Behavior	Group showing undesirable or immature response (N = 15)		Remainder of total group (N = 50)	
	Mean	Standard deviation	Mean	Standard deviation
No overt attempt	5.2	2.9	3.4	2.4
Attempts to solve alone	4.2	2.9	6.5	2.3
Asks another to solve	.7	1.6	.3	.9
Asks help	2.2	2.3	.9	1.7
Rationalizes	1.7	1.2	.8	1.5
Interest	3.5	3.0	6.8	2.9
Sulks	1.0	2.0		
Cries	1.0	1.6	.1	.4
Whines	2.3	2.3	.3	1.2

ing program. After training, children tried longer, manifested more interest in solving problems themselves, and completely eliminated emotional behavior. Evidently this improvement was not a function of age or other training. Of particular interest to teachers and psychologists may be the fact that the program of training was neither arduous nor time-consuming.

VII

Effects of Group Situations

1.

AN EXPERIMENTAL ANALYSIS OF SOME GROUP EFFECTS

By John F. Dashiell

Introduction. A striking contemporary development in the field of social psychology is the envisagement of its phenomena in terms of the stimulus-response concept, so familiar and fundamental in the psychology of the individual, and in terms of stimuli and responses as interrelations between the individuals composing the social whole or wholes. Formulated in this more precise manner, problems of social psychology become more directly subject to experimental attack, and so the causal or influencing factors become more identifiable and measurable.

Experimental procedures have for the most part been directed to the problem of the effects upon one individual's efficiency of other people in the immediate environment. This general problem, however, turns out to be complex; and the attention of different investigators has turned to various aspects thereof.

One aspect of this general problem takes the form: What is the effect upon an individual's work of the presence of quiet auditors or spectators? Travis [1] found that of 22 individuals trained singly in a hand-eye pursuit coordination test, 18 made a higher average of ten consecutive scores when tested before an audience than when alone. Gates,[2] using as tests coordination, color naming, analogies, and naming words, found no reliable differences between groups tested before 1 observer, before 4 to 6, and before 30 to 40; but, using as evidence the direction of small differences, she observed that performance was in general poorest under the last-named condition, especially for the better individuals.

Another aspect of the general problem may be put: What is the effect upon an individual's work of overt vocal attitudes on the part of other persons? Cason [3] showed that the vividness of students' voluntary imagery as reported by them was increased or decreased by corresponding suggestions from an instructor in 45 cases out of 50. Gates and Rissland [4] found that encouraging or discouraging comments had a helpful effect upon scores in a motor coordination and a color-naming test, a slight advantage

From *Journal of Abnormal and Social Psychology*, 1930, XXV, 190–199. Reprinted by permission of the author and the American Psychological Association, Inc.

[1] Lee E. Travis, "The Effect of a Small Audience upon Eye-Hand Coordination," *J. Abnor. & Soc. Psychol.*, 1925, XX, 142–146.

[2] G. S. Gates, "The Effect of an Audience upon Performance," *ibid.*, 1924, XVIII, 334–344.

[3] Hulsey Cason, "Influence of Suggestion on Imagery in a Group Situation," *ibid.*, 1925, XX, 294–299.

[4] G. S. Gates and L. Q. Rissland, "The Effect of Encouragement and of Discouragement upon Performance," *J. Educ Psychol.*, 1923, XIV, 21–26.

lying with the former; but they found these differences slight. This was in line with the general type of results obtained by earlier investigators (Brand, Jones, Strong, Bell, Small, Binet, Pearce, and others). Laird [5] observed that "razzing" by fraternity brothers-to-be tended to produce poorer records made by initiates on four motor tests, but not uniformly for all tests nor for all initiates.

A third phase of the general problem is: What is the effect upon an individual's performance of the presence of a coworking but noncompetitive group? Some earlier investigators—Mayer,[6] Schmidt, and Meumann—had each found a definite facilitating effect on the work of school children when done in the presence of coworkers compared with that done alone. Allport,[7] working with adults, and using free chain-association, argumentation, letter cancellation, multiplication, attention to a reversible perspective, and judgments of odors, found that when working in a group the individual tends to show greater speed (from 93 percent to 57 percent of the individuals in the different tests) but poorer quality of work. By instructions to his groups he reduced the rivalry motive to its lowest possible point. Weston and English [8] found 8 out of 10 adults to make higher scores on intelligence test materials when working in a group than when alone; but Farnsworth [9] failed to obtain these results with a larger number of subjects and more detailed control of technique, although he noted improved work in the group on the more difficult test items. Sengupta and Sinha [10] found 5 subjects to do faster work in cancellation of letters when working together. Travis [11] found that stutterers showed an effect of coworkers upon individual achievement in free chain-association of an opposite character (loss) from that shown by Allport's nonstutterers.

A fourth aspect of the general problem may be formulated: What is the effect upon an individual's performance of the presence of competitors working in explicit rivalry? Triplett [12] in an early study set 40 children to turning fishing reels at maximum speed, singly and in competing pairs; and he found that under the latter condition 20 were stimulated favorably, 10 unfavorably, and 10 little affected. Moede [13] found that when working in rivalry, the individual boy tended to approach the speed of his competitors, the faster boys showing retardation and the slower, facilitation; and that when the whole number (17) was divided into fast and slow groups, both groups speeded up. When Whittemore [14] had 12 college

[5] D. A. Laird, "Changes in Motor Control and Individual Variations under the Influence of 'Razzing,'" *J. Exper. Psychol.*, 1923, VI, 236–246.

[6] August Mayer, "Ueber Einzel- under Gesamtleistung des Schulkindes," *Arch. f. d. Ges. Psychol*, 1903, I, 276–416.

[7] F. H. Allport, "The Influence of the Group upon Association and Thought," *J. Exper. Psychol*, 1920, III, 159–182, and F. H. Allport, *Social Psychology* (Boston: Houghton Mifflin Co., 1924), Ch 11.

[8] S. B. Weston and H. B. English, "The Influence of the Group on Psychological Test Scores," *Am. J. Psychol.*, 1926, XXXVII, 600–601.

[9] P. R. Farnsworth, "Concerning So-called Group Effects," *J. Genet. Psychol.*, 1928, XXXV, 587–594.

[10] N. N. Sengupta and C. P. N. Sinha, "Mental Work in Isolation and in Group," *Indian J. Psychol.*, 1926, I, 106–110. (Abstract in *Psychol. Abstr.*, I, No. 292.)

[11] L. E. Travis, "The Influence of the Group upon the Stutterer's Speed in Free Association," *J. Abnor. & Soc. Psychol.*, 1928, XXIII, 45–51.

[12] Norman Triplett, "The Dynamogenic Factors in Pacemaking and Competition," *Am. J. Psychol.*, 1897, IX, 507–532.

[13] W. Moede, "Einzel- und Gruppenarbeit," *Prakt. Psychol.*, 1920–21, II, 71–81, 108–115. (Reference from Allport.)

[14] I. C. Whittemore, "The Influence of Competition on Performance: An Experimental Study," *J. Abnor. & Soc. Psychol.*, 1924 XIX, 236–253.

students do typing with rubber stamps, working in groups but under two kinds of instruction, "to compete" and "not to compete," every individual did faster but poorer work when competing. Hurlock [15] divided 78 school children into two groups which were instructed to compete with each other as groups, while working on addition tests; and she observed striking improvement in the work of these groups as compared with that of a control group, the improvement holding both for speed and for quality of work.

Problem. It was the aim of the present experiments to study several of these different phases of the general problem concerning the effect of other people upon an individual's work, at one and the same time. In each of the investigations referred to above, the general type of procedure was to compare with the typical "control" situation, individual-working-alone, some one social or "experimental" situation, individual-working-in-rivalry-with-others or -before-an-audience or -in-presence-of-coworking-group, etc. In the present case it was thought that by testing out several different situations with the same human subjects in the course of the same experimental program, more direct comparisons could be made between one social situation and another affecting individual efficiency, and relative evaluations approached.

More specifically, it was first desired to make intercomparisons between the individual's achievements when working alone (A), when working together with a coworking but noncompetitive group (T), when striving to excel others of the group as his rivals (R), and when working under the close observation of spectators (O). This was the project in the first experimental series. Later it was desired to examine the situation "alone" to see whether a difference in details of experimental procedure, as noted in the literature, might not produce a difference in the "aloneness" of this situation. This, if present, would be revealed as a difference in the individual's efficiency when working alone but simultaneously with others and with a time signal arrangement connected with theirs (AS), and when working alone at a different time and with one's own independent time signals (AD).

General Procedure. As the subject matter upon which the individuals were to work and by which their efficiency might be measured, selection was made of the following tests: Multiplication of two-place by two-place numbers, 36 examples to a sheet; mixed relations or analogies, 45 examples to a sheet; and free serial word-associations. Material for the multiplication and the mixed relations tests was mimeographed, and for the serial association tests a blank page was furnished. All sheets for all tests had explicit instructions and sample items mimeographed upon the back, which were read over in every case before the sheet was turned up for work at the "go" signal; and were also read aloud by the experimenter on the first occasion. Five alternative sets of all materials were provided. To equalize the difficulty of the alternative multiplication tests much the same digits in the successive examples were used in composing the different sheets, with various simple but sufficiently altering changes adopted: transposition of digits within each two-place number, exchange of digits between multiplicand and multiplier, alternation of the order of the problems, etc. The materials for the mixed relations test were taken directly from the standardized list of Pintner and Renshaw,[16] in

[15] E. B. Hurlock, "The Use of Group Rivalry as an Incentive," *J. Abnor. & Soc. Psychol.*, 1927, XXII, 278–290.

[16] R. Pintner and S. Renshaw, "A Standardization and Weighting of Two Hundred Analogies," *J. App. Psychol.*, 1920, IV, 263–273.

order from easiest to hardest; and equalization of alternative sheets was sought by copying from that list in rotation.

Instructions to the subjects were of the usual type, they being urged to work "as *accurately* and as *fast* as you can." The items of the multiplication and the mixed relations tests were to be taken in a definite order with no skipping. In the serial association test the subject was to speak words silently, using "any words that come to you, only they must not make phrases or sentences"; and he was to jot down the first two or three letters of every second word as it came.

In each situation the test series included a 4-minute working interval on the multiplication test, a 4-minute interval on the mixed relations test, and three 1-minute intervals in close succession on the serial association test.

To check extraneous factors the usual precautions were adopted. With different sections of the whole group the situations were taken in different orders, the three tests were attacked in different orders, and the alternative mimeographed test forms were used in different orders, each of these variations being independent of the others. Also a preliminary series was run to acquaint the subjects with the character of their tasks.

The subjects used were college undergraduates, mostly of sophomore grade, who were members of beginning classes in psychology. Their active cooperation was secured by crediting their work on this research against their laboratory requirements in those courses.

Results of First Series. In the winter quarter of 1929, 38 students served as subjects and in the spring quarter of 1929, 55 students served, each group being divided into laboratory sections of about 15 members each and meeting at different scheduled times.

In the alone (A) situation, the individuals worked in separate rooms throughout two floors of the building, their time signals being by buzzers locally placed and plugged in on a wiring system centrally controlled by the experimenter. In the together (T) situation, they were seated about two large tables, and were explicitly and repeatedly told not to compete as their results would never be compared with each others'. The rivalry (R) situation was the same except that they were bidden now to compete in view of a later comparison of their scores. In the under-observation (O) situation, the students were seated 3 to a small table, one working while the other two watched him closely and attentively, gazing at his face, hand and pencil, etc. (but not looking at his test material in case they had not yet served their turn as subject). In situations T, R, and O, a buzzer same as that used in A was employed to sound time signals.

Results with the two groups of subjects are presented in Table 1. The figures furnished do not represent absolute scores but *relative* values of the scores made in the different situations. The papers of each subject were *ranked* as best or highest, second, third, and poorest or lowest, with respect to the four different situations under which they were done; then the *total number of individuals* who made a certain rank of score *in a given situation* is shown by a number in the table. (E.g., with the Winter group, and considering speed in multiplication, 8 individuals did their fastest work in situation A, 3 did their second fastest work in A, 16 their third fastest in A, and 11 their slowest in A; while 5 did their fastest in T, 8 their fastest in R, and 18 their fastest in O.) In determining total ranking, split ranks did not always total whole numbers, and fractions in the totals have been disregarded in the table, hence certain slight inequalities in grand totals of rows or columns.

The ranking method was considered sufficiently refined for present purposes, in view of the complexity of the situations used even under attempt at experi-

TABLE 1

WINTER, 1929

Multiplication: Speed

	Highest	Second	Third	Lowest
A	8	3	16	11
T	5	6	11	16
R	8	18	5	8
O	18	11	6	3

Multiplication: Accuracy

	Highest	Second	Third	Lowest
A	13	11	9	5
T	7	13	12	6
R	11	7	7	13
O	7	7	11	13

Mixed Relations: Speed

	Highest	Second	Third	Lowest
A	9	7	13	9
T	6	7	13	12
R	5	12	7	14
O	18	13	4	3

Mixed Relations: Accuracy

	Highest	Second	Third	Lowest
A	9	8	11	10
T	12	14	6	6
R	9	10	10	10
O	8	6	12	11

Serial Associations: Speed

	Highest	Second	Third	Lowest
A	4	11	12	11
T	5	8	15	10
R	7	8	9	14
O	22	11	2	3

SPRING, 1929

Multiplication: Speed

	Highest	Second	Third	Lowest
A	12	10	12	28
T	4	14	15	18
R	17	16	9	9
O	20	15	14	6

Multiplication: Accuracy

	Highest	Second	Third	Lowest
A	16	12	11	14
T	11	16	11	15
R	15	13	15	15
O	14	12	14	10

Mixed Relations: Speed

	Highest	Second	Third	Lowest
A	8	11	21	12
T	5	5	9	35
R	15	23	13	6
O	28	15	11	1

Mixed Relations: Accuracy

	Highest	Second	Third	Lowest
A	17	15	14	8
T	18	11	10	15
R	11	19	12	12
O	9	10	16	19

Serial Associations: Speed

	Highest	Second	Third	Lowest
A	3	9	29	14
T	0	4	17	33
R	21	26	6	2
O	31	16	3	5

mental control, and in light of the fact that this method has shown suggestive results in other investigations mentioned in the Introduction where more precise statistical treatments brought little to light.[17]

Inspection of the total rankings in Table 1 brings out a few general trends. Speed in multiplication is shown to be facilitated most in situations O and R, especially the former. Accuracy in multiplication seems to be slightly higher in

[17] Generally speaking, the various studies of group effects have tended to show little or nothing when the data of test results are handled in the conventional statistical procedure. When the test scores of the individuals examined are treated to show, e g , their mean and their average deviation, often little comes to light. Yet when the individuals are counted in terms of how many show one or another difference within his own test results, certain directions among these small differences may become marked. Consider, for instance, the fact that in one of the studies of Travis (footnote 1) he found the differences between group averages of the ten scores made by all individuals before an audience and of the ten best scores made alone to be "statistically unreliable," yet 18 out of the 22 individuals, or 81.8 percent, had higher individual score averages in the former.

TABLE 2

SUMMER, 1929

Multiplication: Speed

	Highest	Second	Lowest
AD	2	3	10
AS	6	7	3
T	8	5	3

Multiplication: Accuracy

	Highest	Second	Lowest
AD	9	6	1
AS	4	9	3
T	4	2	10

Mixed Relations: Speed

	Highest	Second	Lowest
AD	2	4	10
AS	7	4	5
T	7	7	2

Mixed Relations: Accuracy

	Highest	Second	Lowest
AD	8	7	2
AS	6	3	7
T	2	6	7

Serial Associations: Speed

	Highest	Second	Lowest
AD	3	6	7
AS	3	4	9
T	10	6	0

CONSIDERING ONLY AD *vs.* AS

Multiplication: Speed

	Higher	Lower
AD	4	12
AS	12	4

Multiplication: Accuracy

	Higher	Lower
AD	10	6
AS	6	10

Mixed Relations: Speed

	Higher	Lower
AD	4	12
AS	12	4

Mixed Relations: Accuracy

	Higher	Lower
AD	9	6
AS	6	9

Serial Associations: Speed

	Higher	Lower
AD	9	7
AS	7	9

A. Speed in mixed relations is definitely highest in O. Accuracy in mixed relations is, by a small difference, lowest in O, with a tendency to highest in A and in T. Speed in serial association is clearly highest in O, with R probably second. Other comparisons of some interest are suggested, but the differences are slight.

More generally, the facilitation of speed when work is done merely in the presence of a coworking group over that done in isolation, as observed by some investigators, is not clearly indicated here. What would seem, from our results, to be important phases of a social situation as increasing an individual's speed are the presence of some of the competitive attitude or else of some of the being-observed attitude.

Results of Second Series.[18] The question arose, may not the so-called "alone" situations of different investigators really be different in character? More specifically, is the "alone" situation in which the subjects are working in different rooms but simultaneously and with signals controlled from one common center, calculated to set up something of the same attitude in the individual as does the physical presence of others? To determine this point, an experimental series was run in the summer of 1929.

Sixteen students served as subjects, divided into two equal sections.

[18] For the conduct of this series of experiments the writer is indebted to Dr. Lee M. Brooks

Three situations were used. The "alone" situation as used in the First Series was again employed—simultaneous work with identical signals (AS). But now a new "alone" situation was arranged in which each subject presented himself at the laboratory at his own individually appointed time, received his test materials from the experimenter with a reminder of his general instructions, and retired to a private room where his signals were given him by an automatic "interval timer" (modified alarm clock) in the setting and regulation of which he had been previously practiced, thus working at a different time from the other subjects (AD). For a third situation the coworking group (T) was again arranged, the signals being given sometimes by buzzer as in AS, sometimes by interval timer as in AD.

Results are presented in Table 2, figures being used with the same general signification as in Table 1. Upon inspection of the table it appears that speed is clearly greatest for more individuals in the T situation so far as serial associations are concerned, but not clearly greater than in the AS situation in the other two tests; and that speed is slowest in the AD situation in the latter two tests. It further appears that accuracy in work is greatest, in the more cases, in the AD situation and is least in the T situation.

The middle position of the AS scores, as respects both speed and accuracy, fortifies our previous supposition that an "alone" situation in which the individual is working in the knowledge that others are working simultaneously with him, on exactly the same tasks, and with one signal-control, lacks some of being a truly solitary situation and is likely to set up social attitudes in the individual.

To make more distinct the differences between the so-called "alone" situation just mentioned, and the "alone" situation from which the elements of simultaneity and identical central control have been eliminated, comparisons were made of the scores made in the AD and AS situations only, and shown on the right-hand side of Table 2. The differences become clearer than when scores in the T situation were included in the rankings, inasmuch as ties between AD and T scores and ties between AS and T scores, resulting in split ranks, tended to obscure true differences between AD and AS scores.

General Discussion. Our study bears upon three of the four part-problems concerning group effects on the individual stated in the Introduction.

As to whether the presence of quiet spectators or audience has influence, our results clearly point to a facilitating effect upon speed at the expense of accuracy.

On the question of the effect of the presence of coworkers, the data here do not clearly bear out the most usual findings of a facilitation of speed with a favorable or an unfavorable effect upon accuracy.

As to the effect of rivalry, the answer here returned is that this attitude does have an effect distinct from that of the mere presence of others, either as coworkers on the one hand, or as spectators on the other.

Further, it is shown that when working apparently in solitude the individual may have social attitudes set up in varying degrees; and it may be inferred that discrepancies in results by different investigators may be in part due to difference in the solitary situation provided.

Through all these problems run indications of the need for more and more *analytic* research. The role of negative adaptation to distractions; that of conditioning to incidental (social) stimuli; differences in the personal make-up of the group, such as prestige, age, degree of familiarity to the individual; differences in the subjects used; in the psychological functions measured—these are but a few.

2.

A COMPARISON OF INDIVIDUALS AND SMALL GROUPS IN THE RATIONAL SOLUTION OF COMPLEX PROBLEMS

By Marjorie E. Shaw

The work done before 1920 in the field of group activity as compared with individual activity has been summarized adequately by Allport.[1] Since then other studies have been made, principally by G. B. Watson,[2] Bechterew and Lange,[3] South,[4] and Belaev.[5] Many of these studies deal primarily with groups wherein individuals are interested in the same stimulus but there is little or no direct social intercourse and stimulation. The work of these individuals is contrasted with that done by isolated individuals.

The present study aimed to present individuals with an actual problematic situation which would call for real thinking to arrive at a proper solution. The problems selected (given in detail below) involve a number of steps all of which must be correct in order that the right answer may be found. The problems were to be given to single individuals and to small groups of cooperating individuals, in order that the abilities of these two might be compared. The problems were such as to make it practically impossible for one individual in the group to get a correct answer instantaneously by a sudden insight into the situation. Rather, they allow all to participate in arriving at a solution; they call for interchange of ideas and for acceptance or criticism and rejection of any idea put forth. At least some of the previous studies have dealt more with the performance of certain rather elementary tasks such as word-building, vowel cancellation, multiplication, turning fishing reels, etc., which have allowed but little constructive cooperation wherein ideas may be accepted or rejected either in whole or in part.

The problems used here are still quite far from the usual type of problematic situation met in real life. They are problems admitting of only one answer; there is only one type of best solution. They arouse none, or very little, of the emotional bias with which persons characteristically approach life situations. It can

From *American Journal of Psychology*, 1932, XLIV, 491–504. Reprinted by permission of the author and the American Psychological Association, Inc.

[1] F. H. Allport, *Social Psychology* (Boston: Houghton Mifflin Co., 1924), ch. 11.

[2] G. B. Watson, "Do Groups Think More Efficiently than Individuals?", *J. Abnor. & Soc. Psychol.*, 1928, XXIII, 328–336.

[3] W. Bechterew and A. Lange, "Die Ergebnisse des Experiments auf dem Gebiete der kollektiven Reflexologie," *Zeit. f. angew. Psychol.*, 1924, XXIV, 305–344.

[4] E. B. South, "Some Psychological Aspects of Committee Work," *J. Appl. Psychol.*, 1927, XI, 348–368, 437–464.

[5] B. V. Belaev, abstract received from the author, entitled "The Problem of the Collective and Its Internal Structure." Other references are: W. A. Barton, Jr., "Group Activity Versus Individual Activity in Developing Ability to Solve Problems in First-Year Algebra," *J. Educ. Admin. & Supervis.*, 1926, XII, 512–518; H. E. Burtt, "Sex Differences in the Effect of Discussion," *J. Exper. Psychol.*, 1920, III, 390–395; M. P. Follett, *Creative Experience* (New York: Longmans, Green & Co., 1924); K. Gordon, "Group Judgments in the Field of Lifted Weights," *J. Exper. Psychol.*, 1924, VII, 398–400; K. Gordon, "A Study of Esthetic Judgments," *ibid.*, 1923, VI, 36–42; E. C. Lindeman, *Social Discovery* (New York: New Republic, 1924); A. D. Sheffield, *Creative Discussion* (New York: Association Press, 1927); and T. W. Thie, "Testing the Efficiency of the Group Method," *English J.*, 1925, XIV, 134–137

be seen at once, then, that not all of the results obtained are directly applicable to any or all group situations.

Method and Procedure

Subjects. The *S*s in this experiment were the students in the class in Social Psychology at Columbia University. This group is a rather highly selected one, in view of the fact that almost all are graduate students, a large percentage of them working for advanced degrees. The experiment was divided into halves; 3 problems were used in the first half and 3 in the second half given 2 weeks later. In the first half there were 2 groups of 4 women each and 3 groups of 4 men each. There were 9 men and 12 women working on the problems individually in the same room. In the second half of the experiment there were 2 groups of 4 men each and 3 groups of 4 women each; and 10 men and 7 women worked as separate individuals in the same room. Thus data were received from an equal number of groups of men and women, i.e., 5 groups of each. It will be seen from the above that a group was never composed of the two sexes, but in all cases of either 4 women or 4 men. It was believed that this arrangement would, in general, make for better cooperation and more smoothly running groups. The grouping was not made for any purpose of sex comparisons; no such comparisons are made in this study.

Problems. (*a*) **First Half of Experiment.** The directions used in the first half of the experiment were as follows:

(1) Materials for this problem are in the envelope marked "Problems I and II." Use disks H1, H2, H3, W1, W2, W3. (For the present disregard the symbols on the reverse side.) Side 1 of the card. On the A-side of a river are three wives (W1, W2, W3) and their husbands (H1, H2, H3). All the men but none of the women can row. Get them across to the B-side of the river by means of a boat carrying only three at one time. No man will allow his wife to be in the presence of another man unless he is also there.

(2) Materials for this problem are in the envelope marked "Problems I and II." Use disks marked M1, M2, M3, C1, C2, RC. (Reverse side of the disks just used.) Side 1 of the card. Three Missionaries (M1, M2, M3) and three Cannibals (C1, C2, RC) are on the A-side of a river. Get them across to the B-side by means of a boat which holds only two at one time. All the Missionaries and one Cannibal (RC) can row. Never under any circumstances or at any time may the Missionaries be outnumbered by the Cannibals. (Except, of course, when there are no Missionaries present.)

(3) Materials for this problem are in the envelope marked "Problem III." Side 2 of the card. In Circle A arrange the disks in order of size, that is with the largest on the bottom, etc., ending with the smallest on top. Using Circle B as a transfer station, transfer the disks to Circle C so that they will be in the same order in Circle C that they are now in Circle A. Never place a larger disk on a smaller one and move only one disk at a time. (Number the disks for reference if you wish.)

The card referred to in these problems contained on the one side a diagram of a river, for convenience in solving the first two problems, and on the other side a diagram of the three circles necessary to a solution of the third problem.

(*b*) **Second Half of Experiment.** The directions used in the second half of the experiment were as follows:

(1) Materials for the problem are in the envelope marked "Problem I." Put these words, taken from the envelope, together so that they form the last sentence (only one sentence) of the unfinished prose selection.

In New Orleans there is a tree which nobody looks at without curiosity and without wondering how it came there. It reminds one of the warm climes of Africa and Asia. Indeed, with its sharp and thin foliage, sighing mournfully under the blast of one of our November northern winds, it looks as sorrowful as an exile.

(2) Materials for this problem are in the envelope marked "Problem II." These words when put in the proper order form the last

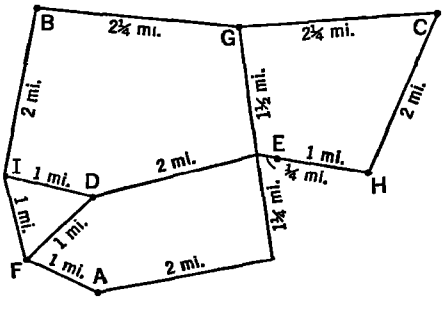
three and one half lines of the unfinished sonnet below. Arrange them as nearly as possible in the proper order.

A boy named Simon sojourned in a dale;
Some said that he was simple, but I'm sure
That he was nothing less than simon pure;
They thought him so because forsooth, a whale
He tried to catch in Mother's water-pail.
Ah! little boy, timid, composed, demure—
He had imagination. Yet endure
Defeat he could, for he of course did fail.
But there are Simons of a larger growth,
Who, too, in shallow waters fish for whales,
And when they fail

(3) A consolidated school is to be built in the rural district shown in the diagram. The capital letters (A, B, C, etc.) indicate points (not towns) where pupils are to be picked up by two school buses. The mileage between each point is indicated on the diagram. The capacity of each bus is 35 pupils and the driver. Find the most desirable location for this school and give the route each bus must take. The buses may start at ANY point and need not necessarily start from the school each morning. Following are the number of pupils to be picked up at each point:

Point	No. Pupils	Point	No. Pupils	Point	No. Pupils
A	6	D	4	G	3
B	13	E	2	H	10
C	17	F	5	I	3

The diagram for problem 3 is given below. It was furnished to each individual who was working alone and was drawn to the scale of 1 inch to the mile. Only one diagram was provided in each group; it was drawn to the scale of 2 inches to the mile.



In addition to the specific instructions given above, the following general instructions appeared at the top of each set of problems given the separate individuals working in the same room:

Below are three problems. Work them as quickly and accurately as possible. There is a correct solution to each problem. Record your answer or state briefly how you solved the problem. When you have finished one problem and are ready to go on with the second, record the time to the nearest half-minute by means of the record being kept on the front board. Then proceed with the second and then the third, and record the time when each is finished. Work the problems in the order listed.

At the top of the set of problems given to each group of 4 individuals were the following instructions:

A chairman has been appointed to manipulate the necessary materials. Work together as a cooperative group to solve the three problems given below. Work them as quickly and accurately as possible. There is a correct solution to each problem. Record your solution or state briefly how the problem was solved. Each individual, including the chairman, should make his contributions to the group solution spontaneously as they occur to him. Indicate to the note-taker when you have finished one problem and are ready to proceed to the next; the note-taker does not participate in any way as a member of the group in solving the problem.

Every individual in the group was provided with a separate set of the problems, but only one set of the necessary materials was given to each group; this made it more essential that all cooperate to solve the problems. The first individual in each group of 4 was appointed chairman to manipulate the materials in order to obviate the confusion and delay which might result if each attempted to carry out his own ideas. The chairman was appointed rather than being elected by the group to prevent unnecessary delay in starting to work, and

because in many cases the individuals had never before met except in the more formal classroom atmosphere. It was thought that any formal or parliamentary organization of the group might tend to restrict spontaneity and cooperation and thus perhaps limit the possibilities of getting the best results.

The note-taker, referred to in the group instructions above, was for the purpose of securing more qualitative and quantitative facts concerning the group activity than the time of solving and answers to the problems would provide. In the first half of the experiment the note-taker was given the following instructions:

> You are to act as note-taker and time recorder for a group of persons solving three problems. You are to take absolutely no part in the group activity. Do not indicate by any means your approval or disapproval of their activities. Record the final solution of the group on each problem. Record the time required to solve each problem. Record as many of the detailed suggestions made by any member of the group as it is possible for you to get.

In the second half it was thought that the following plan might afford more quantitative data concerning the activity of the groups.

> Tally separately every suggestion made by any member of the group so that a record can be made up of the complete number of suggestions made in any one group. Get as much as is possible of each suggestion made. Record this in your notes. If the suggestion is rejected check the tally. Note whether it is rejected by the person who proposed it or by another member of the group. If the suggestion is accepted underscore the tally.

There were 10 sets of notes taken and in only 3 cases did the note-taker have any knowledge either of the problem or of its correct solution. Thus the knowledge of whether a rejected suggestion was in reality an erroneous or a correct suggestion could have but little effect on the notes taken, and can be determined by *E* only from these same notes.

Equalization of the Groups. In order to equate the groups, that is, to be reasonably sure that no one group was made up of four superior individuals and that those who worked in groups were on the whole neither inferior to nor superior to those working as separate individuals, shifts were made so that the composition of the groups differed in the two halves of the experiment. Individuals making up the first group were chosen from the class roll by placing every other man and woman in a group. Certain deviations had to be made from this general procedure in the case of absence from class, since the aim was to keep the total number of men working in groups and as separate individuals approximately equal for the total experiment; the same being true for the women. Every group was composed of 4 individuals because it was thought that a group of this size would cooperate to better advantage than a very much larger or smaller one. Also the limited number of available *S*s made it impossible to increase the number much and still have enough single groups to make the comparisons meaningful. Limited room accommodations also limited the number of groups.

Table 1 below shows the accomplishments of every *S* as he worked alone in the first half of the experiment. Table 2 shows the accomplishment of the groups in the second half of the experiment. Group A′ in the second half of the experiment was composed of individuals *Y*, *G*, *I*, and *R* of the first half of the experiment; Group B′ of *K*, *U*, *W*, and an individual not before present; Group C′ of *M*, *J*, *A*, *F*; Group D′ of *Q*, *L*, *R*, *C*; and Group E′ of *H*, *T*, *X*, *B*. It will be seen that each group contained only one person who had solved a problem correctly in the first half of the experiment. Since the groups in the first half were chosen at random it was necessary to check the individuals in the second half

TABLE 1

SHOWING FOR EVERY INDIVIDUAL *S* AND FOR EVERY GROUP OF *S*s THE TIME IN MINUTES REQUIRED FOR A SOLUTION AND THE NATURE OF THE SOLUTIONS OF THE PROBLEMS OF THE FIRST HALF OF THE EXPERIMENT

		Problem 1		Problem 2		Problem 3	
		Time	Solution	Time	Solution	Time	Solution
Individuals	*D*	6.5	Incorrect	29.0	Incorrect	6.0	Incorrect
	F	4.5	"	17.5	"	13.5	"
	G	3.5	"	6.0	"	20.5	"
	H	1.0	"	3.5	"	10.0	"
	K	2.0	"	4.5	"	18.0	"
	L	1.5	"	2.5	"	9.5	"
	N	1.0	"	2.5	"	15.0	"
	P	7.0	"	5.5	"	15.5	"
	R	1.5	"	3.0	"	19.0	"
	A	6.0	"	15.0	"	14.5	Unsolved
	C	4.5	"	5.5	"	14.0	"
	W	6.0	"	18.0	"	14.0	"
	J	4.5	"	6.5	"	5.5	"
	X	4.0	"	12.5	"	13.0	"
	Y	4.5	"	10.0	"	15.5	"
	T	10.5	"	20.0	"	15.0	"
	B	3.0	"	8.5	"	60.0	Correct
	I	4.5	"	8.5	"	21.0	"
	M	5.0	Correct	8.0	"	5.0	Incorrect
	Q	9.5	"	9.5	"	5.5	"
	U	4.0	"	12.5	"	16.0	Unsolved
	Av.	4.5		9.9		15.5	
	S.D.	2.5		6.7		11.0	
Groups	A	5.0	Incorrect	7.5	Incorrect	4.5	Incorrect
	B	4.5	Correct	34.0	Correct	17.0	Correct
	C	5.0	"	12.0	"	37.0	Unsolved
	D	16.0	"	27.0	"	29.0	Correct
	E	2.0	Incorrect	4.0	Incorrect	4.0	Incorrect
	Av.	6.5		16.9		18.3	
	S.D.	4.97		11.6		13.1	

to see that no group in the first half had been superior. From Table 2 can be seen the accomplishments of the individual *S*s in the second half. Group A was made up of individuals *A'*, *J'*, *N'*, and an *S* not used in the second half; Group B of *H'*, *F'*, *M'*, and *P'*; Group C of *B'*, *C'*, *X'*, and an *S* not used in the second half; Group D of *E'*, *K'*, *L'*, and *Q'*; and Group E of *D'*, *G'*, *I'*, and an *S* not used in the second half. Thus it seems probable that no group was composed of 4 superior individuals. In neither half of the experiment did a group contain more than one individual who had solved a problem correctly in the other half of the experiment, and no single individual ever correctly solved more than one problem.

Results

Table 1 summarizes the time (in minutes) required for and the nature of every solution presented by a group or by the individual *S*s in the first half of the experiment. It will be seen that only 5 correct solutions out of a possible 63 were returned by the different *S*s. There were 8 correct solutions out of a possible 15 for the groups. That is, 7.9 percent of the solutions turned in by individual *S*s were correct, while 53 percent of the solutions turned in by groups were correct. It was found that the false solutions to the problems could be divided into several different types. In Problem 1 two types of false solution, handed in by 13 different individuals, made an error in the first move, 4 made an error in the third move and 1 made an error in the fifth. It took 7 single moves to solve the problem correctly. No group erred on the first move; one erred on the third and one on the fourth. Group activity would seem to insure not only a larger proportion of correct solutions, but also that even in erroneous solutions the error is not made so early in the solution.

The solution to Problem 2 shows the same. It takes 13 single moves to arrive at a correct solution. Among the individual *S*s, 3 erred on the first move, 4 on the second, 6 on the third, 2 on the fifth, 2 on the sixth, 1 on the seventh, and 2 on the eighth. The last 3 who erred on the seventh and eighth did not consider their solutions completed as all the cannibals and missionaries had not been transferred to the B-side of the river. It is interesting to note that no group got as near as this to a correct solution of this problem and then failed to reach it. Three groups solved the problem correctly; both of the others erred on the fifth move.

Problem 3 cannot be classified so easily on the basis of the first false move, since in all cases, except in one group, once the method of transfer was hit upon success was assured. In the case of 7 individual *S*s no solution at all was recorded; it may be assumed that they were unable to reach one. Six individual *S*s skipped circle B, the transfer station. Two spread the disks out in B until 4 had been transferred; then the disks were piled up and the fifth one either transferred through B to C or skipped over B to C. After this the others were again spread out and then transferred to C. Four individual *S*s slipped the disks from underneath. One group skipped the transfer station; one spread the disks out as described above. No group slipped them from underneath; 2 groups contemplated this but abandoned it as being too simple; one group abandoned spreading them out as also being too simple. In Group C, Problem 3 has been recorded as unsolved, but this does not fairly represent the group. They had successfully transferred 4 disks into circle C and the fifth into circle B, but in manipulating to get the fifth disk into C they lost sight of their real aim and became confused. They quit work then, although saying that they "probably could figure it out if they stayed with it long enough." The instructions for this problem appear not to have been sufficiently clear in the prohibition of certain procedures. It was felt that too many instructions here might make the correct solution too obvious, although the bizarre plan of spreading the disks out in the circles was never anticipated. The problem had been previously tried out both on groups and separate individuals, and neither the plan of spreading out the disks nor that of slipping them from underneath had occurred. The instructions had, therefore, been assumed to be adequate. It is to be noted that several *S*s indicated that they were aware of not having followed the directions exactly. For example, one individual who slipped them from underneath commented, "This seems too simple but I can't see how it can be solved without moving a covered disk."

TABLE 2

SHOWING FOR EVERY INDIVIDUAL S AND FOR EVERY GROUP OF Ss THE TIME IN MINUTES REQUIRED FOR A SOLUTION AND THE NUMBER AND NATURE OF THE ERRORS MADE IN THE PROBLEMS OF THE SECOND HALF OF THE EXPERIMENT

		Problem 1		Problem 2		Problem 3		
		Time	Errors	Time	Solution	Time	Location	Excess
Individuals	*A*	6.0	2	27.0	Unsolved	5.0	1.25	0.5
	B'	8.0	1	37.0	"	21.0	1.25	5
	C'	12.0	10	150.0	Incorrect	35.0	.25	5
	D	7.0	8	25.0	Unsolved	25.0	1.0	5
	F	8.0	1	16.0	Incorrect	16.0	1.25	.5
	G	2.0	1	6.0	Unsolved	13.0	3.0	5
	H'	14.0	1	20.0	"	15.0	.25	5
	J	6.0	1	85.0	Incorrect	30.0	6.0	1.75
	K	9.0	2	35.0	Unsolved	12.0	4.0	1.75
	L'	7.5	1	20.0	"	24.0	6.0	1.75
	M'	11.0	7	42.0	Incorrect	18.0	1.25	1.25
	X'	12.0	3	39.0	Unsolved	14.0	4.0	2.0
	P'	8.5	9	17.0	"	12.0	1.25	5
	Q'	5.0	1	31.0	Incorrect	10.0	4.0	2.25
	W'	6.5	0	29.0	Unsolved	18.0	Unsolved	
	I'	6.0	0	78.0	Incorrect	29.0	4.0	1.25
	N'	10.0	0	26.0	Unsolved	10.0	3.0	1.5
	Av.	8.2		40.2		18.0	2.5	1.06
	S D	2.9		33.8		7.9	1.9	
Groups	*A'*	3.0	0	28.0	Incorrect	3.0	.25	5
	B'	12.0	0	45.0	"	10.0	4.0	2.25
	C'	6.0	1	69.0	"	60.0	Unsolved	
	D'	2.0	0	26.0	"	8.0	5.0	1.50
	E'	4.5	0	40.0	"	10.0	1.25	.75
	Av	5.5		41.6		8.0	2.6	1.25
	S D	3.5		15.4		2.9		

Also, after the experiment, one individual *S* was overheard by *E* saying that "since the instructions did not say that the disks should not be slipped from underneath" she solved the problem that way because she "could not see how else to do it."

Table 2 gives the time and number of errors made by every individual *S*, and by every group of *S*s on the three problems given in the second half of the experiment. The seventh column, which is headed "location," gives the number of miles which the proposed location is from the best location. The eighth column gives the number of excess miles which the two buses travel, the shortest possible number of miles being 12.

It will be noted that here, as in Problem 1, a greater percentage of the groups obtained a correct solution than individual *S*s. Of the solutions reported by the different *S*s 5.7 percent were correct; and by the groups, 27 percent were correct.

The incorrect solutions in this half of the experiment also are interesting when analyzed. Among the groups there were 4 correct solutions on the first problem, the single error being the transposition of the words "time immemorial" to read "immemorial time." Only 3 *S*s completed the sentence to read as it had in the original. By far the greatest number of errors lay in the placing of the single word "there," which could be put in 7 different places without disturbing the smoothness of the sentence. This error was made (often together with others) in 10 cases by individual *S*s but by no group. Five *S*s submitted solutions wherein the structure of the sentence was poor.

None of the individual *S*s solved Problem 2 correctly; 11 stated that they could not solve it and presented no solution. The 6 other individual solutions varied in their degree of imperfection. One *S* simply composed a complete sentence to finish the sonnet. Three others had either 3 or 4 of the rhyme words, but an erroneous rhyme scheme. One person had the first line in accord with the original and one had the last line correct. Others made more or less serious errors here. The second and third lines were never correctly written by any individual. All groups turned in a solution. The rhyme scheme was correct in all cases; the first line was correct in 3 cases and the last one in 4. Group B had the two middle lines almost correct. The meaning was the same as that in the original, although several words were misplaced. In some group and some individual solutions the words had been so arranged as to convey a meaning almost opposite to that in the original.

Neither a group nor an individual arrived at a correct solution of the third problem. The average error in location and average excess number of miles traveled were about equivalent for the groups and individuals. In part, the absence of a correct solution may be due to the fact that it took a long time to solve the first and second problems. In many cases the completion of the third meant dismissal for the evening; thus perhaps any apparently suitable location was accepted. (On the other hand many persons took the problems home with them in order to complete the second and third. They kept time for themselves and returned the solutions the next week.) A comparison of Tables 3 and 4 shows that among the groups the total number of suggestions was by far the least in the third problem.

Reference to the notes kept by the note-takers will give more definite information regarding the activities within the groups. All those in a group do not participate equally in the group activity. Such remarks or tabulations as the following are found in the notes from three groups in all. (The note-takers numbered the *S*s to facilitate taking notes.) "*S* 1 and *S* 3 were leaders in the solution." From the tabulation of suggestions given in the solution referred to it is found that *S* 1 made 7 suggestions and *S* 3 made 14 suggestions; while *S* 2 and *S* 4 made, respectively, 2 and 3 suggestions. Later in these same notes we find, "*S* 2 not contributing much." In another set of notes: "*S* 3 and *S* 4 offered no suggestions during the solution." In the next problem solved by this same group *S* 2 made 16 suggestions, *S* 1 made 12, *S* 4 made 8, and *S* 3 made 5. From yet another set: "*S* 1 and *S* 4 did most of the suggesting, *S* 2 and *S* 3 not working much." In solving Problem 2 in the first half of the experiment the note-taker remarks that "*S* 2 and *S* 3 draw their own diagrams and become absorbed in them: do almost no suggesting." In solving Problem 3 "*S* 3 made no comments at all, *S* 2 spoke only a few words." In one of the above groups an *S* who participated a great deal in group activity very soon assumed the task of manipulating the material in the place of the less active *S* who had been appointed

TABLE 3

SHOWING, FOR EVERY GROUP OF *Ss*, THE NUMBER OF CORRECT AND INCORRECT SUGGESTIONS AND REJECTIONS, AND THE NUMBER OF REJECTIONS BY THOSE MAKING THE SUGGESTIONS AND BY OTHERS OF THE GROUP

(Problem 1, Second Half of Experiment)

Groups	Suggestions			Rejections			
	No.	Correct	Incorrect	Correct	Incorrect	Maker	Others
A′	29	18	11	3	11	7	7
B′	24	18	6	1	6	1	6
C′	17	8	9	0	8	0	8
D′	20	11	9	2	9	2	9
E′	31	25	6	2	6	2	6
Totals . .	121	80	41	8	40	12	36

chairman. Possibly one could get interesting, meaningful, and perhaps quite different sets of results by using in one set of cases groups with a chairman either equal or superior to the group, and in another set groups having a chairman inferior to the group in ability.

In some groups quite the reverse situation is found, and all members cooperate splendidly. Such comments as the following are found in the notes from the three groups: "All contributing beautifully," and later, "all cooperating and making check suggestions." From another, "suggestions coming from all four about equally." Another records, "the four members cooperate well," and on another page, "splendid group work."

In the first half of the experiment Groups A and E solved all problems incorrectly. From notes kept there was apparently but little criticism of the work in Group E. The note-taker remarks, "All satisfied with the solution." The members of Group A, however, seemed to recognize that they were not taking all specifications of the problem into consideration, but rationalized their procedure and turned in solutions. At the end of the first problem the recorder notes that "they conclude that they have solved the problem, though perhaps not in the way the directions signify." This group is one of those referred to above in which the members do not participate equally in the group activity. In Problem 2 they finally agreed that the boat's contact with the shore would not constitute a case of outnumbering by the cannibals! In Problem 3 they failed to consider circle B always as a transfer station, but skipped it whenever it was convenient to do so.

In the other groups there is much more reference to the checking of errors and meeting the conditions of the problem. One group worked a solution through three times to be sure that they had met all specifications; in the last trial they discovered an error which would have made their solution wrong. The notes on these groups also mention numerous references to the stated problem to see that all qualifications were being taken into account.

Table 3 above deals with Problem 1 in the second half of the experiment. Column 2 shows the total number of suggestions made in each group. Columns 3 and 4 show respectively the number which were in reality correct and the number which were incorrect. Columns 5 and 6 indicate whether those suggestions which were rejected were respec-

TABLE 4

SHOWING, FOR EVERY GROUP OF *Ss*, THE NUMBER OF CORRECT AND INCORRECT SUGGESTIONS AND REJECTIONS, AND THE NUMBER OF REJECTIONS BY THOSE MAKING THE SUGGESTIONS AND BY OTHERS OF THE GROUP

(Problem 2, Second Half of Experiment)

Groups	Suggestions			Rejections			
	No.	Correct	Incorrect	Correct	Incorrect	Maker	Others
A′	71	32	39	10	35	18	27
B′	49	23	26	9	20	8	19
C′	76	35	41	9	29	7	31
D′	32	15	17	2	13	4	11
E′ . . .	37	17	20	2	14	3	13
Totals . .	265	122	143	32	111	40	101

tively correct or incorrect. Columns 7 and 8 show the number of suggestions which were rejected by the individual making the suggestion or by another member of the group.

It will be noted from Table 2 that there was only one error (a word transposition) in any group solution. In one case, Group A′, the suggestions rejected by the proposer or by another are exactly equal in number; in all other cases more were rejected by another member. Considering all groups together, three times as many suggestions were rejected by another member of the group as by the proposers of the suggestions. Five times as many incorrect as correct suggestions were rejected, whereas of the total number of suggestions made, twice as many were correct as incorrect. This fact may be considered in connection with the relative number of correct solutions among groups and among individuals. This quantitative check on rejections was not kept in the first half of the experiment, but from its results in the second half, together with the proportion of correct solutions in the first half, and the fact that notes on the groups presenting correct solutions emphasize the checking of erroneous moves, it seems as though group supremacy in the first half might have been in part due to the rejection of incorrect suggestions or the checking of errors. Also it was found that no group was composed of four superior individuals. All this would seem to indicate that one point of group supremacy is the rejection of incorrect ideas that escape the notice of the individual when working alone. Perhaps this may be the greatest point of group supremacy.

It is impossible to say with any certainty whether the rejected correct suggestions were rejected oftener by the proposer or by another member of the group. Only 8 correct suggestions were rejected, and these were all later accepted, since the solutions were with but one exception absolutely correct. (In the solution where two words were transposed, the correct suggestion concerning their position was never made: this was a case of the acceptance and retention of an incorrect suggestion.) Five of the correct suggestions were rejected by the proposer and 3 by another, but with so small a total the difference is not significant.

Tables 4 and 5 summarize the data received on Problems 2 and 3. Since neither of these problems was correctly solved in any case, the value of the group checking does not appear so clearly. But a con-

TABLE 5

SHOWING, FOR EVERY GROUP OF *S*s, THE NUMBER OF CORRECT AND INCORRECT SUGGESTIONS AND REJECTIONS, AND THE NUMBER OF REJECTIONS BY THOSE MAKING THE SUGGESTIONS AND BY OTHERS OF THE GROUP

(Problem 3, Second Half of Experiment)

Groups	Suggestions			Rejections			
	No.	Correct	Incorrect	Correct	Incorrect	Maker	Others
A′	17	6	11	3	7	4	6
B′	10	3	7	1	6	0	7
C′	(No solution attempted)						
D′	10	2	8	0	5	0	5
E′	13	5	8	2	4	1	5
Totals . .	50	16	34	6	22	5	23

sideration of these results, with an analysis of individual and group work on these two problems, brings out the same fact as above. For example, only 6, or 35%, of the individual *S*s presented a solution to Problem 2, as compared with 5, or 100%, of the groups. But perhaps more important than this is the fact that only one individual solution presented the idea conveyed by the part of the sonnet quoted; the other presented an opposite situation. (That is, they had *Simple Simon* railing "at ill luck and unkind fate.") Three groups conveyed the correct idea, while only 2 reversed the conditions. That is, only $\frac{1}{6}$ of the individual *S*s, as compared with $\frac{2}{5}$ of the groups, succeeded in grasping and presenting the proper situation. It seems not altogether improbable that this is a direct result of the rejection of incorrect ideas in the group; which, it should be noted again, is done largely by another member than the proposing one (2.52 times as many suggestions were rejected by another as by the proposer).

We find in the case of Problem 3, first, that all groups met the requirement as to the capacity of the buses, whereas 2 individual *S*s placed more than 35 pupils in a bus (one placed 43 and the other 37 in one of the buses). Other than this, however, no superiority either of group over individual or of individual over group is shown when the two are compared as a whole.

SUMMARY

The purpose of the present study was to compare the ability of individuals and cooperating groups of 4 persons in solving complex problems. The problems involved a number of steps, all of which had to be correct before the right answer was obtained, but they are still far from the life-situations usually met. The groups were roughly equated so that no one group was composed of 4 superior individuals, but the students used were a highly selected group when compared with the population as a whole.

Upon the basis of the data and discussion presented in the foregoing pages the following conclusions seem justified:

(1) Groups seem assured of a much larger proportion of correct solutions than individuals do.

(2) This seems to be due to the rejection of incorrect suggestions and the checking of errors in the group.

(3) In groups of the size here used more incorrect suggestions are rejected by another member of the group than by

the individual who proposed the suggestion.

(4) All members do not cooperate or participate equally in the solution of the problems.

(5) In erroneous solutions (where it is possible to determine the exact point at which the first error was made), groups do not err so soon as the average individual does.

3.

AN EXPERIMENTAL STUDY OF LEADERSHIP AND GROUP LIFE

By Ronald Lippitt and Ralph K. White

The study here reported, conducted in 1939 and 1940, attempted in an exploratory way to discover the extent to which various aspects of leadership behavior and of total group life could be fruitfully studied by experimental procedures of controlled matching and planned variation in conditions. The study had as its objectives:

1. To study the effects on group and individual behavior of three experimental variations in adult leadership in four clubs of eleven-year-old children. These three styles may be roughly labeled as "democratic," "authoritarian" and "laissez-faire."

2. To study the group and individual reactions to shifts from one type of leadership to another within the same group.

3. To seek relationships between the nature and content of other group memberships, particularly the classroom and family, and the reactions to the experimental social climates.

4. To explore the methodological problems of setting up comparative "group test situations," to develop adequate techniques of group process recording, and to discover the degree to which experimental conditions could be controlled and manipulated within the range of acceptance by the group members.

The major experimental controls may be described briefly as follows:

1. *Personal characteristics of group members.* Because a large group of volunteers were available from which to select each of the small clubs, it was possible to arrange for comparability of group members on such characteristics as intelligence, and on such social behaviors (measured by teachers' ratings) as obedience, amount of social participation, leadership, frequency of quarreling, amount of physical energy, etc.

2. *The interrelationship pattern of each club.* In each group, by the use of a sociometric questionnaire in each classroom, it was possible to select groups which were very closely matched in terms of patterns of rejection, friendship, mutu-

Prepared by the authors from data more fully reported in (1) Kurt Lewin, Ronald Lippitt, and Ralph K. White, "Patterns of Aggressive Behavior in Experimentally Created 'Social Climates,'" *J. Soc. Psychol.*, 1939, X, 271–299; (2) Ronald Lippitt, "An Experimental Study of Authoritarian and Democratic Group Atmospheres" in *Studies in Topological and Vector Psychology, I, University of Iowa Studies in Child Welfare*, No. 16, 1940; (3) Ronald Lippitt, "An Analysis of Group Reactions to Three Types of Experimentally Created Social Climates" (Unpublished doctoral thesis, State University of Iowa, 1940); (4) Ronald Lippitt, "Field Theory and Experiment in Social Psychology: Authoritarian and Democratic Group Atmospheres," *Am. J. Sociol.*, 1939, XLV, 26–49; (5) Ronald Lippitt, "The Morale of Youth Groups," in Goodwin Watson (ed.), *Civilian Morale* (Boston: Published for Reynal & Hitchcock by Houghton Mifflin Co., 1942); and (6) Ronald Lippitt and Ralph K. White, "The 'Social Climate' of Children's Groups," in Roger Barker, Jacob Kounin, and Herbert Wright, *Child Development and Behavior* (New York: McGraw-Hill Book Co., 1943).

	Period 1 (7 weeks)	*Period 2* (7 weeks)	*Period 3* (7 weeks)
Treatment	Autocracy	Autocracy	Democracy
Club	Sherlock Holmes	Sherlock Holmes	Sherlock Holmes
Leader	I	IV	II
Treatment	Autocracy	Democracy	Autocracy
Club	Dick Tracy	Dick Tracy	Dick Tracy
Leader	II	III	I
Treatment	Democracy	Autocracy	Democracy
Club	Secret Agents	Secret Agents	Secret Agents
Leader	III	II	IV
Treatment	Democracy	Democracy	Autocracy
Club	Charlie Chan	Charlie Chan	Charlie Chan
Leader	IV	I	III

ality of relationship, and leadership position.

3. *Physical setting and equipment.* All clubs met in the same clubroom setting, two at a time in adjacent meeting spaces, with a common equipment box.

4. *Activity interests.* It was important to know the extent to which initial interest in the planned activities might be responsible for differences in degree of involvement in activity during the experiment. Therefore it was ascertained in the beginning that all groups of boys were comparably interested in the range of craft and recreational activities in which they would later be engaged.

5. *Activity content.* It is clear that the structure and content of an activity often exerts a powerful influence on the patterns of interdependence, cooperation, competition, etc. in group life. Therefore, it was important that activity content should be equated in these three types of leadership situations. In order to insure this, the clubs under democratic leadership met first in time during the week, and the activities which were selected by those clubs were automatically assigned to the parallel clubs under authoritarian leadership. In the laissez-faire situation, there were a number of potential activities of the same type as that selected by the "democratic clubs."

6. *The same group under different leadership.* The experimental design also made it possible to have a perfect matching of club personnel on the same analysis by comparing the same club with itself under three different leaders.

Experimental Variations

In the beginning the experimenters had planned for only two major variations in adult leader behavior: an authoritarian pattern and a democratic pattern. Later it was decided that it would be more fruitful to add a third variation of "laissez-faire" adult behavior, although with the four available clubs it would make the experimental design less rigorous. The method of systematic rotation can be noted in the above chart, which refers to the earlier experiment (the same method was followed in the later experiment).

The three types of planned variation were as follows:

1. *The sequence of social climates.* A number of the hypotheses focused upon the effect of a particular type of group history in determining the reactions of a group to a present pattern of leadership. The chart indicates the variety of group history sequences which were selected for exploratory study.

2. *"Leader role" and "leader personality."* There was a question as to the extent to which certain basic personal-

ity characteristics of the adult leaders would be important determinants in the individual and group behavior patterns which resulted. To study this variable, four adults with very different personality patterns were selected as leaders and all of them after proper indoctrination took two or three different leadership roles with different groups during the course of the experiment as indicated on the chart. This made it possible to discover whether certain of the leaders induced common reaction patterns which could be traced to their "personality" as contrasted to their "leadership role."

3. *The three planned leadership roles.* The three variations in leader role which were worked through in careful detail by the four club leaders may be summarized as follows:

Plan for authoritarian leadership role. Practically all policies as regards club activities and procedures should be determined by the leader. The techniques and activity steps should be communicated by the authority, one unit at a time, so that future steps are in the dark to a large degree. The adult should take considerable responsibility for assigning the activity tasks and companions of each group member. The dominator should keep his standards of praise and criticism to himself in evaluating individual and group activities. He should also remain fairly aloof from active group participation except in demonstrating.

Plan for the democratic leadership role. Wherever possible, policies should be a matter of group decision and discussion with active encouragement and assistance by the adult leader. The leader should attempt to see that activity perspective emerges during the discussion period with the general steps to the group goal becoming clarified. Wherever technical advice is needed, the leader should try to suggest two or more alternative procedures from which choice can be made by the group members. Everyone should be free to work with whomever he chooses, and the divisions of responsibility should be left up to the group. The leader should attempt to communicate in an objective, fact-minded way the bases for his praise and criticism of individual and group activities. He should try to be a regular group member in spirit but not do much of the work (so that comparisons of group productivity can be made between the groups).

Plan for laissez-faire leadership role. In this situation, the adult should play a rather passive role in social participation and leave complete freedom for group or individual decisions in relation to activity and group procedure. The leader should make clear the various materials which are available and be sure it is understood that he will supply information and help when asked. He should do a minimum of taking the initiative in making suggestions. He should make no attempt to evaluate negatively or positively the behavior or productions of the individuals or the group as a group, although he should be friendly rather than "stand-offish" at all times.

The data below will indicate the extent to which these planned variations were carried out and the pattern of social stimulation which was represented by the leader behavior in each of the clubs.

The Three Patterns of Leader Behavior

From the great variety of observations recorded on the behavior of each leader it was possible to compute quantitative profiles of leader performance which could be compared to see the extent to which the three different types of leadership role were different and the degree to which the adults carrying out the same role were comparable in their behavior patterns. Figure 1 illustrates some of the major differences in the patterns of behavior of the three leadership roles. Most of the comparisons on the graph meet the test of statistical significance. The "average leader" comparisons are based on four democratic, four authoritarian, and two laissez-faire leader roles. The first three classifications of behavior, "leader orders," "disrupting commands" and "nonconstructive criticism," may be thought of as representing adult behavior

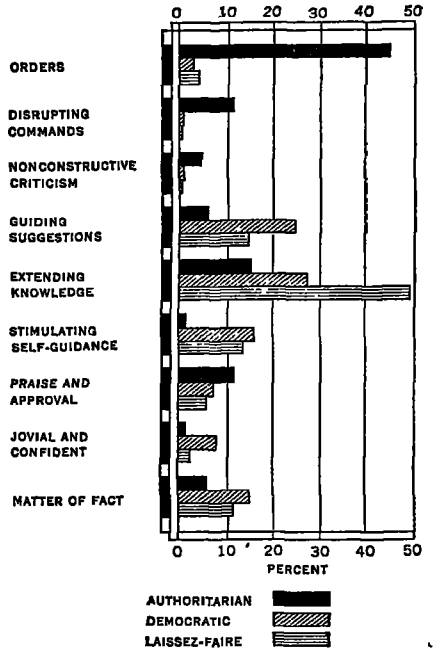


FIG. 1. Comparison of behavior of average authoritarian, democratic, and laissez-faire leader.

which has a limiting effect upon the scope and spontaneity of child activity. About 60 percent of all of the behavior of the average authoritarian leader was of these types as compared to 5 percent for the democratic and laissez-faire leaders. The data show that the authoritarian leader usually initiated individual or group activity with an order, often disrupted on-going activity by an order which started things off in the new direction not spontaneously chosen, and fairly frequently criticized work in a manner which carried the meaning, "It is a bad job because I say it is a bad job" rather than, "It is a poor job because those nails are bent over instead of driven in."

The next three behavior classifications, "guiding suggestions," "extending knowledge," "stimulating self-guidance," may be thought of as extending individual and group freedom and abilities. We note here some of the major differences between the democratic and the laissez-faire leadership role. Whereas the democratic leader took the initiative (where he felt it was needed in making guiding suggestions) much more frequently than the laissez-faire leader, a major proportion of the latter leadership role was giving out information when it was asked for. It is clear, however, that the democratic leader did not take initiative for action away from the group as indicated by the fact that the average democratic leader showed a greater proportion of "stimulating self-guidance" than even the laissez-faire leader. The category of "stimulating self-guidance" was made up of three main items: "leader's requests for child's opinions on individual and group plans," "use of child judgment as criterion," and "taking consensus of opinion." The data indicate that the democratic leaders stimulated child independence eight times as often as the authoritarian leader and about twice as often as the laissez-faire leader, although the latter two types of adults showed about the same proportion of this behavior in their total pattern of activity.

The classification on the graph entitled, "praise and approval" is made up of such behavior items as "praising," "giving credit," "giving O.K.s," etc. It indicates largely the functioning of the adult as a dispenser of social recognition. The authoritarian adult was significantly more active in this regard than either of the other two types of leaders.

The extent to which the adult discussed personal matters unrelated to the club situation (home, school, etc.), and also joked on a friendly basis with the club members, is indicated by the "jovial and confident" classification. The democratic leader had social interactions of this type with the group members about eight times as often as either the authoritarian or laissez-faire leaders. This is perhaps one of the best indices of the

extent to which the democratic leaders were "on the same level" as the club members.

The last classification on Figure 1, "matter of fact," indicates one measurement of the extent to which the various social atmospheres were "fact-minded" as compared to "personal-minded" as far as the behavior of the adults was concerned.

The degree to which all the adult leaders, delegated to assume a given leadership role, behaved in a comparable fashion on these major aspects of leadership role is indicated by the fact that, on all comparisons differentiating major characteristics of the three roles, there is no overlapping of the behavior of any representative of one role with any representative of a different role. Thus it is possible to conclude that three clearly different leadership patterns were created with a much smaller range of individual differences in leader behavior within each pattern than between the patterns.

Leadership Role and Personality Style. An examination of the behavior patterns of the different leadership roles by the same individuals (see chart on page 318) reveals that on the items of leader behavior there is no greater similarity between the different performance patterns of the same individual than between those of different individuals. If we turn to the data of the three interviews with each club member in which at each transition stage in their club life they compared their leaders and talked very fully about them, we find again that there is no evidence of any adult personalities being rated favorably or unfavorably independently of their particular leadership role (i.e., authoritarian, democratic, laissez-faire). All leaders stood high as well as low for one group or another and all the comments about their "personalities" were concerned with attributes of their leadership roles which had been measured.

The following excerpts from interviews of club members who had just completed six months of club life which included an authoritarian, a laissez-faire, and a democratic leader (in that sequence) indicate rather clearly the aspects of "leadership personality" which were perceived as important.

"RW (democratic) was the best leader and DA (laissez-faire) was the poorest. RW has good ideas and goes right to the point of everything . . . and always asked us what to do next time the club met, which was very nice. . . . DA gave us no suggestions like RW did, and didn't help us out at all, though he was very nice to us . . . but let us figure things out too much. I liked RL (authoritarian) pretty well for that kind of work."

"RL (authoritarian) was best, and then RW (democratic) and DA (authoritarian). RL was the strictest and I like that a lot. DA and RW let us go ahead and fight, and that isn't good, though RW didn't do it as much as DA did. DA just didn't give us much to do. RW was OK, but he didn't have so many ideas as RL did. RW wanted to do what we did; RL didn't want to go with us lots of times, and he decided what we were to do."

"I liked RW (democratic) best, then DA (laissez-faire) and then RL (authoritarian). RW was a good sport, works along with us and helps us a lot; he thinks of things just like we do and was just one of us—he never did try to be the boss, and wasn't strict at all, but we always had plenty to do (the golden mean). DA didn't do much, just sat and watched; there wasn't much I didn't like about him, but he didn't help us much . . . not like with RW when we had regular meetings and that was very good. RL was all right mostly; he was sort of dictator like, and we had to do what he said pretty nearly; he helped us work but he was sort of bossy."

"I liked RW (democratic) the best and RL (authoritarian) the least. RW was in between DA and RL, I like everything about him. I once said I didn't want to change from DA but I'm glad we changed. We could do what we pleased with DA but he was too easy going, not hard enough nearly, but he's a real nice person. With RL we always had something to do, and we did

get a lot of things done, but I didn't like anything about him; he was much too strict. He was not cross, but very direct."

"I'd take RW (democratic) for a club leader, and DA (laissez-faire) was the worst. RW is just the right sort of combination; RL (authoritarian) was just about as good as RW, but he was kind of cross once in a while. RW had interesting things to do, he was just about right in everything. DA was too easy; he didn't know anything about the club—didn't know about its ways. He didn't understand us boys at all. . . . I didn't like him as well as RL because he had too few things for us to do." [1]

Another indirect indication that individual personality characteristics were not of any great significance in influencing group life in this study might be inferred from the finding that the total patterns of group reactions of different clubs to the same atmosphere tend to be remarkably homogeneous in spite of differences in adult leadership.

Data Collection and Analysis

Before continuing to summarize the individual and group behaviors which resulted from these three variations in leadership role, we will indicate briefly the types of data collection and analysis in the total study.

Eight types of club records were kept on each group, of which the four most important were kept by four different observers as follows.

1. A quantitative running account of the social interactions of the five children and the leader, in terms of symbols for directive, compliant, and objective (fact-minded) approaches and responses, including a category of purposeful refusal to respond to a social approach.
2. A minute-by-minute group structure analysis giving a record of activity subgroupings, the activity goal of each subgroup, whether the goal was initiated by the leader or spontaneously formed by the children, and rating on degree of unity of each subgrouping.
3. An interpretive running account of strikingly significant member actions and changes in the atmosphere of the group as a whole.
4. Continuous stenographic records of all conversation.

These data were synchronized at minute intervals so that placed side by side they furnished quite a complete and integrated picture of the on-going life of the group.

Five other types of data covering the lives of the club members were collected, the three most important being:

1. Interviews with each child by a friendly "non-club" person during each transition period from one kind of group atmosphere and leader to another. These interviews elicited comparisons of the various club leaders with one another, with the teacher and with parents as well as other data about how the club could be run better, who were the best and poorest types of club members, what an ideal club leader would be like, etc.
2. Interviews with the parents, concentrating on kinds of discipline used in the home, status of the child in the family group, personality ratings on the same scales used by the teachers, discussion of the child's attitude toward the club, school and other group activities.
3. Talks with the teachers concerning the transfer to the schoolroom of behavior patterns acquired in the club and vice versa.

The reliability of the eleven trained observers ranged from .78 to .95 with an

[1] Beside indicating the leadership characteristics perceived as important by the boys, the reader will note that one boy in this club (an army officer's son) preferred his authoritarian leader and that the other four split in that two preferred their authoritarian leader second best and two liked their laissez-faire leader second best.

average reliability of .84. Another reliability computation on the coding of three thousand units of conversation into twenty-three categories of behavior showed a percent agreement of 86. The analyses of what constituted a "group life unit" showed reliabilities ranging from .90 to .98. A number of methodological researches carried on since the date of this study seem to suggest that it is possible to get much more meaningful and reliable observation data than has been generally believed if much more time and effort are spent on a careful "calibration" of psychologically well-trained observers.

Comparative Group Test Situations. The experimenters also postulated that a fruitful way to discover some of the major differences between the three types of group atmosphere would be to arrange comparable "test episodes" in each club. So at regular intervals the following situations occurred:

(1) Leader arrives late.
(2) Leader called away for indeterminate time.
(3) Stranger ("janitor" or "electrician") arrives while leader out and carries on critical attack of work of individual group member, then of group as a whole.

The Four Resultant Styles of Group Life

Some of the major findings, summarized from stenographic records and other case material which are elsewhere reproduced, are as follows: Two distinct types of reaction were shown to the same pattern of authoritarian leadership. All of the data, including the documentary films, indicate that three of the clubs responded with a dependent leaning on the adult leader, relatively low levels of frustration tension, and practically no capacity for initiating group action, while the fourth club demonstrated considerable frustration and some degree of channelized aggression toward the authoritarian leader. (This latter pattern is much more comparable to the behavior of the club under authoritarian leadership in a previous experimental study of two clubs.[2])

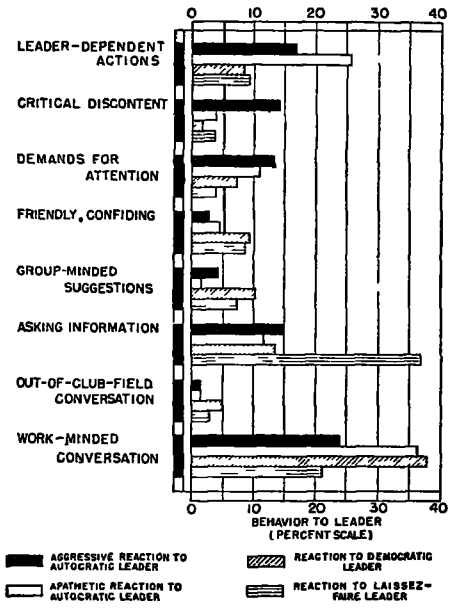


FIG. 2. Four patterns of group reaction to the three different types of leadership.

Figure 2 indicates the major differences in the relations which developed between the group members and the adult leaders in the four resultant social atmospheres. In both types of authoritarian atmosphere the members were markedly more dependent upon the leader than in either the democratic or laissez-faire situations, dependence being somewhat greater in the more passive clubs. All other clubs showed a somewhat greater feeling of discontent in their relations with the adult leader than did the members of the democratic clubs, members of the "aggressive autocracy" being outstanding in their expression of rebellious feelings. There is evidence

[2] See (2) of footnote on p. 315.

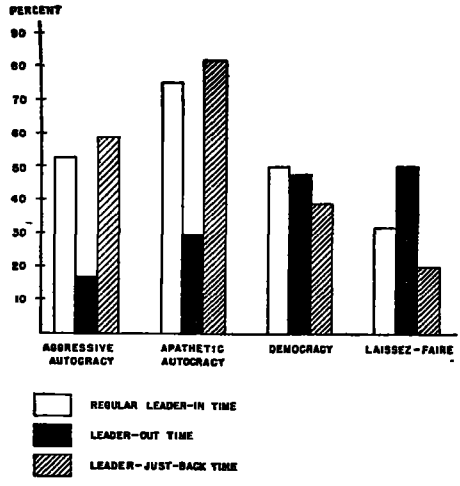


FIG. 3. Percent of time spent in high activity involvement.

from other sources that the actual "felt discontent" in the "apathetic autocracies" was somewhat higher than indicated by the conversation which was considerably more restricted than was that of the democratic and laissez-faire club members.

In both types of authoritarian situations the demands for attention from the adult were greater than in the other atmospheres. It seemed clear that getting the attention of the adult represented one of the few paths to more satisfactory social status in the authoritarian situation where all of the "central functions" of group life were in the hands of the dominator.

The category "friendly, confiding" indicates that the members of the democratic and laissez-faire clubs initiated more "personal" and friendly approaches to their adult leaders, and the data on "out-of-club-field conversation" further indicate the more spontaneous exchanging of confidences about other parts of one's life experience in the democratic club atmosphere.

The data on "group-minded suggestions" to the leader show that the members in the democratic atmosphere felt much freer and more inclined to make suggestions on matters of group policy than in the other three group atmospheres. It is clear from other data that the lower level of suggestions in the laissez-faire situation is not because of any feeling of restricted freedom but because of a lack of a cooperative working relationship between the adult and the other group members.

The much greater responsibility of the members of the laissez-faire clubs to get their own information is shown by the fact that about 37 percent of their behavior toward their leader consisted of asking for information, as compared to about 15 percent in the other three club situations.

The final category in Figure 2, "work-minded conversation," indicates that a considerably larger proportion of the initiated approaches of the club members to their leaders were related to on-going club activity in the democratic and in the apathetic authoritarian situations than in the other two types of social climate.

Resultant Relationships of Club Members. The relationships between the club members also developed along quite different lines in the four social climates. Expressions of irritability and aggressiveness toward fellow members occurred more frequently in both the authoritarian atmospheres and the laissez-faire situation than in the democratic social climates. Unlike the relationships of high interpersonal tension and scapegoating which developed in the previous aggressive autocracy[3] the club in this experiment seemed to focus its aggression sufficiently in other channels (toward the leader and toward the out-group) so that in-group tension did not rise to a dangerously high point.

There were more requests for attention

[3] See (2) of footnote on p. 315.

and approval from fellow club members to each other in the democratic and laissez-faire situations than in the two authoritarian climates. It seems clear that the child members depended upon each other to a great extent for social recognition and were more ready to give recognition to each other in the democratic and laissez-faire situations.

It is interesting to find nearly as high a level of interpersonal friendliness in the authoritarian situations as in the democratic and laissez-faire atmospheres. The underlying spirit of rebellion toward the leader and cooperation in out-group aggression seem to be the "cohesive forces" in aggressive autocracy, while in apathetic autocracy with its much lower level of felt frustration, the shared submissiveness seemed to do away with all incentive to competition for social status.

Intermember suggestions for group action and group policy were significantly lower in both types of autocracy than in the laissez-faire and democratic atmospheres. The dissatisfactions arising from any lack of feeling of real progress in the laissez-faire situation led to a high frequency of expression of ideas about "something we might do." Contrary to the democratic situation, these suggestions seldom became reality because of the lack of the social techniques necessary for group decision and cooperative planning. The group achievement level, as contrasted to the "wish level," was far lower in laissez-faire than in any of the other three atmospheres.

Other Differences. By having the leaders arrive a few minutes late at regular intervals in each club life, it was possible to discover that in the five authoritarian situations no group initiative to start new work or to continue with work already under way developed, as contrasted with the democratic situations where leaders who arrived late found their groups already active in a productive fashion. The groups under the

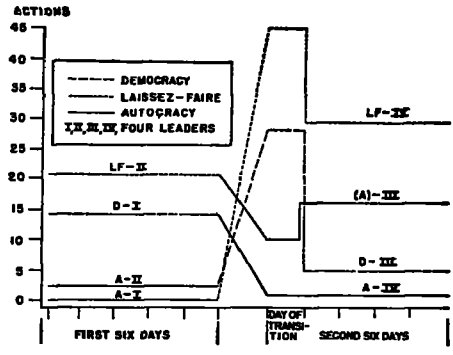


FIG. 4. Horseplay

laissez-faire leaders were active but not productive. Figure 3 shows the percentage of total club time in each of the four social atmospheres which was spent in giving major attention to some planned club project. For each atmosphere there is a comparison between the time when the leader was in the room, the time when the leader had been called out for planned experimental periods, and the unit of time just after the leader returned. The data here give striking evidence of the extent to which work motivation was leader-induced in the two types of authoritarian situation. "Working time" dropped to a minimum with the leader out, and most of what was done was in the minutes just after the leader had left the room. We see that in the democratic atmosphere the absence or presence of the leader had practically no effect. The apparent increase in group productive time with the laissez-faire leader out of the room may or may not be a meaningful result. Two or three times it was noted that when the adult left, one of the boys exerted a more powerful leadership and achieved a more coordinated group activity than when the relatively passive adult was present.

The behavior of the groups under authoritarian domination after their transition to a freer social atmosphere provided a very interesting index of unexpressed group tension. In Figure 4 it can be noted that both of these apathetic

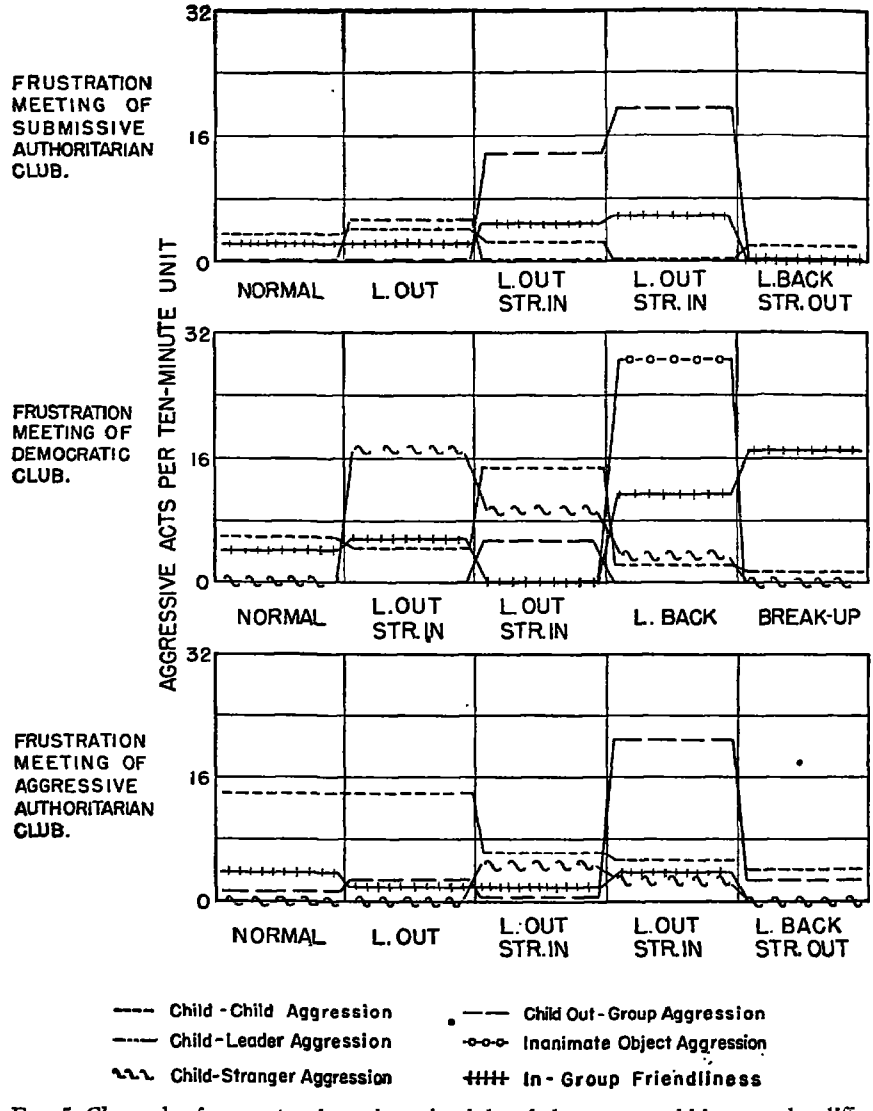


FIG. 5. Channels of group tension release in clubs of eleven-year-old boys under different types of leadership.

authoritarian clubs showed great outbursts of horseplay between the members on the first day of their transitions to a laissez-faire and a democratic group situation. This need to "blow off" disappeared with more meetings in the freer atmosphere.

It will be recalled that in certain situations all groups were subject to the same frustration of hostile criticism by a strange adult (e.g., "janitor") while the adult leader was gone. Under the different types of leaders, the groups handled these frustrations differently. Members of the apathetic authoritarian clubs tended to accept individually and to internalize the unjust criticism or, in one or two cases, they "blew off steam" in

aggressive advances toward an out-group (the other club meeting in the adjacent clubroom; see Figure 5). In the aggressive authoritarian situation, the frustration was typically channeled in aggression toward the out-group, although in several cases there was some direct reaction to the source of frustration, the hostile stranger (see Figure 5). In the democratic atmospheres there was evidence of a greater readiness to unite in rejection of the real source of frustration, the stranger, and to resist out-group aggression. Figure 5 shows an interesting case of a democratic club which first expressed its aggression directly against the stranger, then showed a slight rise in intermember tension, followed by an aggressive outburst against a sheet of three-ply wood with hammer and chisels accompanied by a striking rise in in-group friendliness and a quick return to cooperative harmony. It was particularly interesting to discover that the clubs under democratic leaders resisted scapegoating as a channel of aggressive release.

The data indicate that the democratic type of adult role resulted in the greatest expression of individual differences, and that some type of uniformity-producing forces brought about a slightly lessened individual variability in the laissez-faire situation, and a much reduced range of individuality in the authoritarian clubs. Figure 6 gives an example of this analysis for the same group of individuals under three different leaders.

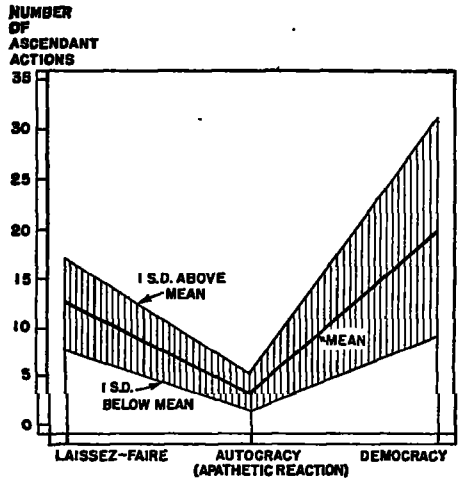


FIG. 6. The effect of changed atmosphere upon the range of individual differences within the same group.

INDIVIDUAL DIFFERENCES AND THE GROUP ATMOSPHERES

We now come to the question of to what extent it is correct to report the data as though all individuals and all groups under the same type of adult leadership role reacted with a high degree of uniformity to the induced social climate. Before turning to the final section of interpretation of individual differences in reaction to the same social climate, it will be interesting to look at the various club lives and see the extent to which the personalities making up each club or the different social atmospheres in which they lived seemed to be the most determining influence in the resulting behavior patterns. Two of the clubs had all three types of leadership. For these two groups it was possible by the techniques of analysis of variance to compare the effects of differences in child personnel and differences in all three experimental treatments. All four clubs were compared in the same way on various items of behavior for the two treatments of autocracy and democracy. It can be reported that in nearly all cases differences in club behavior could be attributed to differences in the induced social climate rather than to constant characteristics of the club personnel. One club showed a consistent variation from the rest through all atmospheres in level of friendliness between members, and one group showed a consistently lower level of social interaction which was not related wholly to their particular club environment.

We have already indicated on pages 319 and 320 that boys in the same club

indicated quite different social perceptions of the behavior of the same leader and also made differing comparative judgments about their preferred leaders after having had two or three. Although all but one boy preferred the democratic leader to the other two types, there was quite a split in the population as to whether they preferred as a second choice the laissez-faire or authoritarian type of adult. To get some clews as to the basis for these differences the experimenters made an attempt to study the personality structure of each individual boy as it showed itself in his reactions to the other boys, to his adult leaders, and to his school and home environments. The records taken during the experiments constituted a type of data which is infrequently found in other approaches to personality study. The most commonly used techniques for studying an individual include interviews, questionnaires, Rorschachs, thematic apperception tests, psychoanalytic free association, and the social case history, consisting of interviews with parents and relatives, but not direct observations of social behavior.

It is not felt, of course, that such records are more useful than interviews, social case histories, or other customary techniques, but only that *when combined* with other techniques they are a valuable part of the total picture and are an extremely useful addition to the toolchest of the clinical psychologist, the educator, the vocational counselor, and others who want to understand and to help a particular individual.

To show this concretely, one condensed case study is summarized below. Like our other case studies, it is based primarily upon club behavior data with much less interview material and home study data than would be found in a first class clinical analysis, but with enough of these data to suggest how the club behavior data can be combined with other sorts in the building up of an integrated personality structure.

The case chosen is one of two extremes, not in a single trait only, but in the large structure of intercorrelated traits, which has been found to be more important than any other trait cluster in our data. This cluster includes such variables as not being aggressive, not demanding attention, high work-mindedness, contentment in the strict but orderly atmosphere of autocracy, discontent in the free but disorderly atmosphere of laissez-faire, consistency of discipline in the home, and warmth of emotional relationship to parents.[4] These variables are statistically correlated to a marked degree; that is, the boys who show one of them usually show most of the others also. The reader can form his own judgment as to an appropriate name for the cluster. The boys who stand low in the cluster as a whole would often be called "bad" by the exasperated adults who have to deal with them, while those who stand high in it would be called "good." Goodness, then, or conscientiousness, might be as good a name as any. It should be noticed, though, that the cluster includes some things, such as liking autocracy better than laissez-faire, which are not included in the ordinary connotations of the word "conscientious." It should be noticed too that the boys who stand low in the cluster—boys like Reilly[5] who is described here—are not necessarily "bad" or antagonistic to adult values and requirements; they may be only heedless and relatively indifferent to those values. In groups such as ours, which contain only healthy "normal" children, with no actual delinquents, it would do violence to common usage to

[4] A factor-analysis of the data will be published elsewhere; its technical character makes it unsuitable for this brief report.

[5] Names and other identifying data have been changed here.

call any of the boys "bad." [6] For these and other reasons the rather cumbersome term "adult-value-centeredness" seems more accurate than "conscientiousness" as a name for the cluster.

Reilly

Club Personality. Reilly was the most talkative, the most conspicuous, and the most popular member of the Charlie Chan club. He was also one of the most irritating to those of his adult leaders who found themselves unable to cope with him. It was Reilly, for instance, who gleefully shouted, "Let's make war!" at the beginning of the first big water battle with the Secret Agents; it was Reilly whose vociferousness, as much as Fred's and Leonard's more aggressive horseplay, led to the complete disintegration of the group under laissez-faire leadership; and it was Reilly who led the "sit-down strike" against the autocratic leader, which was the one instance in any of the clubs of more or less organized rebellion against authority.

While he was so heedless of adult values and adult wishes, he was at the same time very popular with the other boys. He was the best-liked boy in his schoolroom, as determined by a sociometric questionnaire, and he had been elected president of his class. Yet he asserted his personality as vigorously in competition with other boys as in competition with adults. His personality contrasts sharply with that of Eddie, who was the best-liked boy in the other schoolroom from which our club members were selected. Where Eddie was conscientious, quiet, unassuming, and genuinely friendly with everyone, Reilly was exuberant, self-advertising, constantly bombarding the eyes and ears of others with his demands for attention, and, as the statistics showed, relatively low in both friendly and group-minded conversation. He was not actually a leader in the sense that he showed any planning or organizing ability; he was too impatient and too lacking in time-perspective for that. He was a leader only in the sense that he was liked, and also, perhaps, in the sense that his headlong, self-centered activity was imitated by others in the group.

It is interesting to find that, unlike the other two boys who stood with him at the bottom of the total group in the trait-cluster of "conscientiousness," he was never sullen, hostile, or maliciously mischievous. His scores in aggression were only about average, and his aggression (*i.e., criticisms of other boys and* playful collective aggression) was never really hostile in character. Even toward adults he was competitive rather than hostile. He ranked highest among the seventeen boys [7] in the proportion of his adult-contacts which had an attention-demanding character. Characteristically, he would loudly interrupt when the adult was talking to some other club member, and vociferously demand that the adult pay attention to him rather than to the other boy. The absolute frequency of this behavior was also very high, as evidenced by the fact that he also ranked highest, out of 17, in the absolute volume of his verbal contacts with the adult leader, in both autocracy and democracy. (The motivation behind these contacts, to be sure, was probably rather different in the two atmospheres. In autocracy it seems to have been almost entirely an expression of competition for

[6] The Freudian concept of the "super-ego" is relevant here; a "weak super-ego" does not necessarily mean active "badness" or antisocial tendencies. It may be noticed also that the cluster found in our data is similar to one which seems to have been discovered independently by a number of other investigators. It closely resembles Webb's (9) "w" factor, which Thurstone renamed "conscientiousness."

[7] All statistics are based on a population of 17 rather than 20, since there were three boys about whom there was not an adequate amount of home background information.

power—perhaps in order to win boy-admiration—while in democracy it was also an expression of genuine man-to-man friendliness.) It would seem, then, that his somewhat paradoxical popularity was not due to the kind of warm liking which drew other boys to the quiet and unassuming Eddie. Rather, it seems to have been due to the fact that he was so successful in getting a rather gullible public to accept him at his own valuation, while at the same time the absence of malice in his self-assertion kept it from arousing hostility in others. In spite of his competitiveness and essential self-centeredness, the group accorded him a sort of hero worship, perhaps largely because each of them would have liked to be the sort of vital and self-confident person—completely uncowed by adults—which he unquestionably was.

The statistical club-behavior data and interview data support this impressionistic picture. In addition to the quantitative data already mentioned, we find that he had unusually high scores in volume of conversation (with boys as well as with the adult leader), and in percent of "out-of-field" conversation, which in his case represented such things as bragging about his father's hardware store, his own chemistry set at home, etc. In the interviews he expressed a preference for his laissez-faire leader as compared with his autocratic leader, indicating, probably, that his need for orderliness was less than his need for free self-assertion. He also showed unusual frankness in his avowed preference for the boy-valued activity of "fighting," as compared with the adult-valued activity of working. In describing his autocratic leader he said, "We didn't have any fun then—we didn't have any fights."

Summarizing his club personality, we can say first that he was not noticeably motivated by any of the adult-sponsored values which were conspicuous in the conscientious boys—obedience, respectfulness, nonaggression, order, self-control, hard work; second, that his primary goal in the club situation was apparently competition, or *superiority* in the eyes of the other boys; and third, that he tended to perceive adults, not as objects of obedience, respect, or hostility, but as equals, with whom he could compete (or be friendly, as he was with his democratic leader) on very much the same basis as with any of the other boys. These more basic characteristics of his present personality-structure, and not the peripheral behavior-traits of talkativeness, attention-demanding, etc., are what must be especially taken into account, whether our interest is the practical interest of the adult group-leader who has to cope with him, or the scientific interest of the clinical investigator who wants to trace the origins of his present personality-structure in his home background and the behavior of his parents.

Home Background. His indifference to adult-sponsored values becomes intelligible when we discover that neither of his parents seems to have given him any incentive—neither fear of punishment nor hope of loving approval—to develop these values. His indulgent father apparently enjoyed his company (in a man-to-man relationship which offers a clew to his warm reaction to his democratic club leader), but his father was extremely busy and apparently accepted little or no responsibility for his training. His mother apparently disliked him, but felt helpless in relation to him; in the constant feud between them, there was neither the warmth which might have made him want to win her love by being "good," nor the firmness which might have made him fear her restrictions when he was "bad." These two attitudes, rejection and a feeling of helplessness, repeatedly came out in the interview with his mother. According to her, he is impudent, he is irresponsible, he is lazy, he is impatient and unable to stay long at one thing, he continually quarrels with his older brother and teases his younger

brother. She blurted out these criticisms in a weary but almost defiant way. According to her, "punishment doesn't do him any good. I used to lose my temper and whip him; I was pretty mean, I guess," but he would be just as bad or worse afterward, so that now she doesn't ever punish him. "He sasses me back, and I can't stand a sassy child." Sometimes he argues for hours at a time; "maybe it's because I've given in to him several times," and he knows it's a good way to get things. For a while he had an allowance, but "he'd borrow on the next week's allowance and then expected to get it just the same," so the plan was discontinued. He now gets money for movies at least twice a week; if she tells him he can't go, he often goes to his father and gets the money from him.

Not only his indifference to adult values, but also his desire for superiority and his tendency to perceive adults as equals now seem more intelligible. Since his father does not try to exert much authority, and his mother lets the authority situation become a feud in which he often gets the upper hand, he naturally tends to look upon adults as equals. Since his father's affection is always present and his mother's never is, his life is not geared to the winning of affection; the goal of superiority, first of all in relation to his mother and his brothers, has tended to take its place. And, finally, his exuberant vitality and absence of hostility, which were noted as major reasons for his popularity, now make sense in the light of the fact that his home life contains no major frustrations, and no repressed hostilities. Though his personality-structure may bring him trouble later in life, his existence at the moment is full of affection from his father, triumph over his mother, and exciting, successful competition with other boys.

Interpretive Summary

The foregoing condensed and highly selective research report has attempted to show some of the interdependencies of leadership role, group composition, group history, and membership personality structure in this study of four experimental clubs of preadolescent boys.

The leader-induced social atmosphere of the group, together with the group history (the preceding club atmospheres), established a hierarchy of channels of expression of response to frustration. Whereas the "aggressive autocracy" club was more ready to express its frustrations in interclub wars, the "apathetic autocracies" were more prone to internalize the aggression, and the "democratic" and "laissez-faire" groups to react against the source of frustration.

Passive acceptance by the group of the socially induced frustrations of authoritarian leadership was found in some cases to mean a nonfrustrated acceptance of a dependent relationship, and in other cases to mean a frustrated hopelessness in the face of overwhelming power. When a transition to a freer atmosphere occurred these latter cases gave evidence by their "blow-off" behavior of their previous frustrations.

The adult restrictiveness of the benevolent authoritarian role and the environmental unstructuredness of the laissez-faire situation were both found to inhibit greatly genuine "psychological freedom" as contrasted to "objective freedom."

The adult-leader role was found to be a very strong determiner of the pattern of social interaction and emotional development of the group. Four clear-cut types of social atmosphere emerged, in spite of great member differences in social expectation and reaction tendency due to previous adult-leader (parent, teacher) relationships.

It was clear that previous group history (i.e., preceding social climates) had an important effect in determining the social perception of leader behavior and reaction to it by club members. A club which had passively accepted an authoritarian leader in the beginning of its

club history, for example, was much more frustrated and resistive to a second authoritarian leader after it had experienced a democratic leader than a club without such a history. There seem to be some suggestive implications here for educational practice.

It was found in this exploratory study that the process of small-group life could be experimentally manipulated in a satisfactory way for scientific study and could be recorded adequately for meaningful quantitative analysis. There emerged a variety of meaningful clusters of correlations between member case history, member social perception of the group situation, member and group behavior, and leader behavior.

4.

GROUP DECISION AND SOCIAL CHANGE

By Kurt Lewin

The following experiments on group decision have been conducted during the last four years. They are not in a state that permits definite conclusions. But they show the nature of the problems and the main factors concerned. They also indicate the type of concepts to which the attempt to integrate cultural anthropology, psychology, and sociology into one social science may lead.

Scientifically the question of group decision lies at the intersection of many basic problems of group life and individual psychology. It concerns the relation of motivation to action and the effect of a group setting on the individual's readiness to change or to keep certain standards. It is related to one of the fundamental problems of action-research, namely, how to change group conduct so that it would not slide back to the old level within a short time. It is in this wider setting of social processes and social management that group decision should be viewed as one means of social change.

Social Channels and Social Perception

The meaning and the over-all effect of a group decision depends upon the nature of the process itself, and upon the position of the group, within the total social field. In regard to these broader questions we will consider two aspects of social steering, namely, steering through gatekeepers and the function which reality perception should have.

Channels, Gates, and Gatekeepers.—*Food Habits and Food Channels.* The first experiment on group decision was part of a larger study on food habits. Its main objective was a comparison of different ethnic and economic groups in a midwestern town. The favorite family food was studied, what food was considered essential, what main frame of reference and values guided the thinking of these groups about foods, and what authorities were seen as standing behind these standards and values. Children at different ages were included to indicate the process of acculturation of the individual in regard to food. Since this study was part of a larger problem of changing food habits in line with war needs, we were interested in including an attempt to bring about some of the desired changes at least on a small scale.

The data acquired give considerable insight into the existing attitudes and practices of the various groups. However, in this, as in many other cases, such data

Prepared especially for this volume by the author shortly before his death.

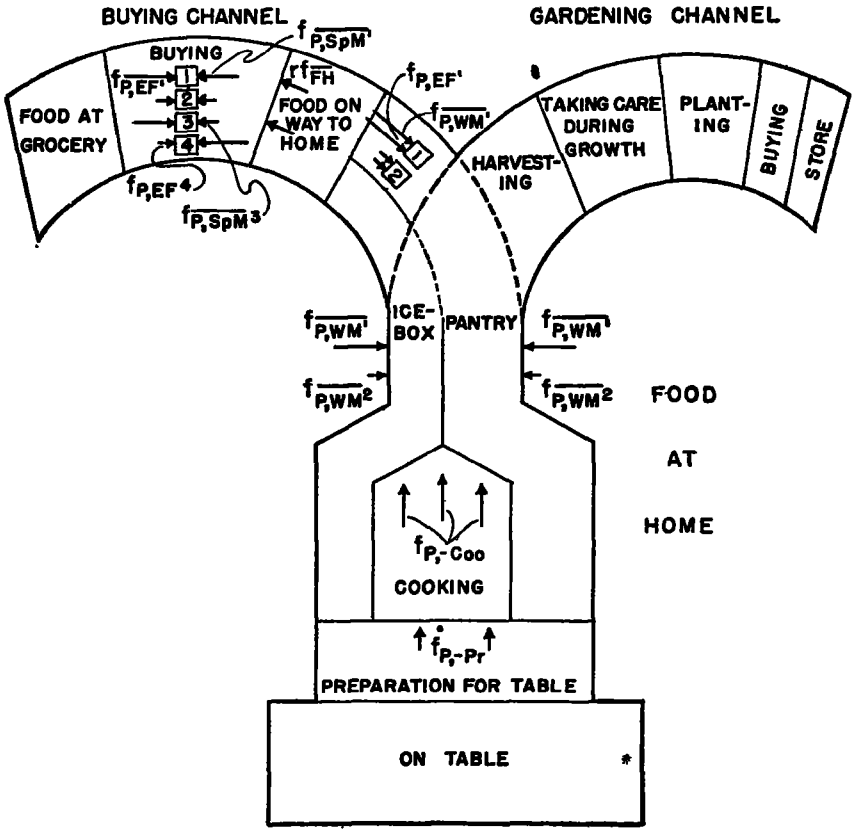


FIG. 1. Channels through which food reaches the family table.

about a present state of affairs do not permit many conclusions in regard to how to proceed best to bring about a change. Should one use radio, posters, lectures, or what other means and methods for changing efficiently group ideology and group action? Should one approach the total population of men, women, and children who are to change their food habits, or would it suffice and perhaps be more effective to concentrate on a strategic part of the population? Obviously the housewife plays some particular role in food habits. What are the underlying assumptions?

Food which comes to the family table is likely to be eaten by someone in the family since little is thrown away. If this is correct, to consider methods of changing family food habits we have first to ask: how does food come to the table?

Food comes to the table through different channels, such as the Buying Channel or the Gardening Channel.[1] After the food has been bought, it might be placed in the icebox or put in the pantry to be either cooked later or prepared directly for the table (Fig. 1). Similarly, the food moves through the garden channel in a step-by-step fashion.

To understand what comes on the table we have to know the forces which

[1] For quantitative data, see K. Lewin, "Forces Behind Food Habits and Methods of Change," *Bull. Nat. Res. Coun.*, 1943, CVIII, 35–65.

determine what food enters a channel. Whether food enters the channel to the family table or not is determined in the buying situation. The buying situation can be characterized as a conflict situation. Food 1 (Fig. 1) might be attractive, that is, the force ($f_{P,EF}$) toward eating is large but at the same time the food might be very expensive and therefore the opposing force ($f_{P,S\$M}$) against spending money is large too. Food 2 might be unattractive but cheap. In this case the conflict would be small. The force toward buying might be composed of a number of components, such as the buyer's liking for the food, his knowledge of his family likes and dislikes, or his ideas about what food is "essential."

The opposing forces might be due to the lack of readiness to spend a certain amount of money, a dislike of lengthy or disagreeable form of preparation, unattractive taste, lack of fitness for the occasion, etc. Food is bought if the total force toward buying becomes greater than the opposing forces (Food 3) until the food basket is filled. Food of type 1 can be called conflict food.

It is culturally significant that the average conflict rating is considerably higher in the middle group (7.44) than in the high (4.35) or the low economic group (5.62). This conflict is probably the result of the greater discrepancy between the standards this group would like to keep up and their ability to do so in a situation of rising prices.

In comparing the conflict rating of different foods for the same group, one finds that meat stands highest for the low group, whereas it is second for the middle and third for the high economic group. That probably means that the conflict between "like" and "expense" in the low group is most outspoken for meat. The high conflict rating of vegetables for the high and middle economic group is probably an expression of the fact that vegetables are desirable as health food but not well liked and not easily prepared. The rates are:

Food	High group	Middle group	Low group
Vegetables	.89	1.44	.57
Milk	.70	.89	.33
Meat	.65	1.28	.95
Butter	.30	.94	.67
Fruits	.43	.94	.62
Potatoes	...	.33	.76

The Gate. It is important to know that once food is bought some forces change its direction. Let us assume the housewife has finally decided to buy the high conflict Food 1. The force against spending money, instead of keeping the food out of the channel, will then make the housewife doubly eager not to waste it. In other words, the force ($f_{P,WM}$) against wasting money will have the same direction as the force toward eating this food or will have the character of a force against leaving the channel.

This example indicates that a certain area within a channel might function as a "gate": The constellation of the forces before and after the gate region are decisively different in such a way that the passing or not passing of a unit through the whole channel depends to a high degree upon what happens in the gate region. This holds not only for food channels but also for the traveling of a news item through certain communication channels in a group, for movements of goods, and the social locomotion of individuals in many organizations. A university, for instance, might be quite strict in its admission policy and might set up strong forces against the passing of weak candidates. Once a student is admitted, however, the university frequently tries to do everything in its power to help everyone along. Many business organizations follow a similar policy. Organizations which discriminate against members of a minority group frequently use the argument that they are not ready to accept individuals whom

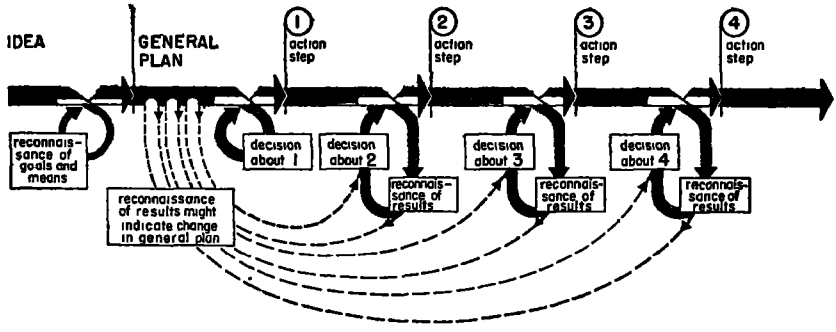


FIG. 2. Planning, fact-finding, and execution.

they would be unable to promote sufficiently.

The Gatekeeper. In case a channel has a gate, the dominant question regarding the movements of materials or persons through the channel is: who is the gatekeeper and what is his psychology?

The study of the high, middle, and low groups, as well as of a group of Czechs and of Negroes in a midwestern town, revealed that all channels except gardening were definitely controlled by the housewife.

We can conclude from this that changes of food habits in the family finally depend on changes of the psychology of the housewife in the buying situation. Changes of the attitudes and desires of children and husbands will affect actual food habits only to the degree they affect the housewife.

Similar considerations hold for any social constellation which has the character of a channel, a gate, and gatekeepers. Discrimination against minorities will not be changed as long as the forces are not changed which determine the decisions of the gatekeeper. Their decision depends partly on their ideology, that is, the system of values and beliefs which determines what they consider to be "good" or "bad," partly on the way they perceive the particular situation. This latter point will be considered more closely by discussing problems of planning.

Planning, Fact-finding, and Execution. Planning usually starts with something like a general idea. For one reason or another it seems desirable to reach a certain objective. Exactly how to circumscribe this objective and how to reach it is frequently not too clear. The first step, then, is to examine the idea carefully in the light of the means available. Frequently more fact-finding about the situation is required. If this first period of planning is successful, two items emerge: an "over-all plan" of how to reach the objective and a decision in regard to the first step of action. Usually this planning has also somewhat modified the original idea.

The next period is devoted to executing the first step of the over-all plan. In highly developed fields of social management, such as modern factory management or the execution of a war, this second step is followed by certain fact-findings. For example, in the bombing of Germany a certain factory may have been chosen as the first target after careful consideration of various priorities and of the best means and ways of dealing with this target. The attack is pressed home and immediately a reconnaissance plane follows with the one objective of determining as accurately and objectively as possible the new situation (Fig. 2).

This reconnaissance or fact-finding has four functions: It should evaluate the action by showing whether what has

been achieved is above or below expectation. It should serve as a basis for correctly planning the next step. It should serve as a basis for modifying the "over-all plan." Finally, it gives the planners a chance to learn, that is, to gather new general insight, for instance, regarding the strength and weakness of certain weapons or techniques of action.

The next step again is composed of a circle of planning, executing, and reconnaissance or fact-finding for the purpose of evaluating the results of the second step, for preparing the rational basis for planning the third step, and for perhaps modifying again the over-all plan.

Rational social management, therefore, proceeds in a spiral of steps each of which is composed of a circle of planning, action, and fact-finding about the result of the action.

In most social areas of management and self-management of groups, such as conducting a conference and committee meeting, family life, or the improvement of intergroup relations within and between nations, we are still lacking objective standards of achievement. This has two severe effects: (1) People responsible for social management are frequently deprived of their legitimate desire for reconnaissance on a realistic basis. Under these circumstances, satisfaction or dissatisfaction with achievement becomes mainly a question of temperament. (2) In a field that lacks objective standards of achievement, no learning can take place. If we cannot judge whether an action has led forward or backward, if we have no criteria for evaluating the relation between effort and achievement, there is nothing to prevent us from coming to the wrong conclusions and encouraging the wrong work habits. Realistic fact-finding and evaluation is a prerequisite for any learning.

Social Channels, Social Perception, and Decision. The relation between social channels, social perception and decisions is methodologically and practically of considerable significance.

The theory of channels and gatekeepers helps to define in a more precise way how certain "objective" sociological problems of locomotion of goods and persons intersect with certain "subjective" psychological and cultural problems. It points to sociologically characterized places, such as gates in social channels, where attitudes and decisions have a particularly great effect.

The relation between group decision and pre- and post-action diagnosis is twofold: (1) group decision depends partly upon how the group views the situation and therefore can be influenced by a change in this perception. (2) A correct perception of the result of social action is essential for the decision of the next step. The measurement of the effect of group decisions is in line with the need for objective evaluation as a prerequisite for making progress in social management and self management of groups.

Group Decision

Lecture Compared with Group Decision (Red Cross Groups). A preliminary experiment in changing food habits[2] was conducted with six Red Cross groups of volunteers organized for home nursing. Groups ranged in size from 13 to 17 members. The objective was to increase the use of beef hearts, sweetbreads, and kidneys. If one considers the psychological forces which kept housewives from using these intestinals, one is tempted to think of rather deep-seated aversions requiring something like psychoanalytical treatment. Doubtless a change in this respect is a much more difficult task than, for instance, the introduction

[2] The studies on nutrition discussed in this article were conducted at the Child Welfare Research Station of the State University of Iowa for the Food Habits Committee of the National Research Council (Executive Secretary, Margaret Mead).

of a new vegetable such as escarole. There were, however, only 45 minutes available.

In three of the groups attractive lectures were given which linked the problem of nutrition with the war effort, emphasized the vitamin and mineral value of the three meats, giving detailed explanations with the aid of charts. Both the health and economic aspects were stressed. The preparation of these meats was discussed in detail as well as techniques for avoiding those characteristics to which aversions were oriented (odor, texture, appearance, etc.). Mimeographed recipes were distributed. The lecturer was able to arouse the interest of the groups by giving hints of her own methods for preparing these "delicious dishes," and her success with her own family.

For the other three groups Mr. Alex Bavelas developed the following procedure of group decision. Again the problem of nutrition was linked with that of the war effort and general health. After a few minutes, a discussion was started to see whether housewives could be induced to participate in a program of change without attempting any high-pressure salesmanship. The group discussion about "housewives like themselves" led to an elaboration of the obstacles which a change in general and particularly change toward sweetbreads, beef hearts, and kidneys would encounter, such as the dislike of the husband, the smell during cooking, etc. The nutrition expert offered the same remedies and recipes for preparation which were presented in the lectures to the other groups. But in these groups preparation techniques were offered after the groups had become sufficiently involved to be interested in knowing whether certain obstacles could be removed.

In the earlier part of the meeting a census was taken on how many women had served any of these foods in the past. At the end of the meeting, the women were asked by a showing of hands who was willing to try one of these meats within the next week.

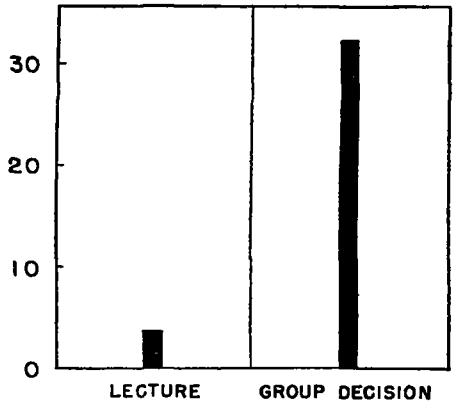


FIG. 3. Percentage of individuals serving type of food never served before, after lecture and after group decision.

A follow-up showed that only 3 percent of the women who heard the lectures served one of the meats never served before, whereas after group decision 32 percent served one of them (Fig. 3).

If one is to understand the basis of this striking difference, several factors may have to be considered.

1. *Degree of Involvement.* Lecturing is a procedure by which the audience is chiefly passive. The discussion, if conducted correctly, is likely to lead to a much higher degree of involvement. The procedure of group decision in this experiment follows a step-by-step method designed (*a*) to secure high involvement and (*b*) not to impede freedom of decision. The problem of food changes was discussed in regard to "housewives like yourselves" rather than in regard to themselves. This minimized resistance to considering the problems and possibilities in an objective, unprejudiced manner, in much the same way as such resistance has been minimized in interviews which use projective techniques, or in a sociodrama which uses an assumed situation of role playing rather than a real situation.

2. *Motivation and Decision.* The prevalent theory in psychology assumes action to be the direct result of motivation. I am inclined to think that we will have to modify this theory. We will have to study the particular conditions under which a motivating constellation leads or does not lead to a decision or to an equivalent process through which a state of "considerations" (indecisiveness) is changed into a state where the individual has "made up his mind" and is ready for action, although he may not act at that moment.

The act of decision is one of those transitions. A change from a situation of undecided conflict to decision does not mean merely that the forces toward one alternative become stronger than those toward the other alternative. If this were the case, the resultant force should frequently be extremely small. A decision rather means that the potency of one alternative has become zero or is so decidedly diminished that the other alternative and the corresponding forces dominate the situation. This alternative itself might be a compromise. After the decision people may feel sorry and change their decision. We cannot speak of a real decision, however, before one alternative has become dominant so far as action is concerned. If the opposing forces in a conflict merely change so that the forces in one direction become slightly greater than in the other direction, a state of blockage or extremely inhibited action results rather than that clear one-sided action which follows a real decision.

Lecturing may lead to a high degree of interest. It may affect the motivation of the listener. But it seldom brings about a definite decision on the part of the listener to take a certain action at a specific time. A lecture is not often conducive to decision.

Evidence from everyday experience and from some preliminary experiments by Bavelas in a factory indicate that even group discussions, although usually leading to a higher degree of involvement, as a rule do not lead to a decision. It is very important to emphasize this point. Although group discussion is in many respects different from lectures, it shows no fundamental difference on this point.

Of course, there is a great difference in asking for a decision after a lecture or after a discussion. Since discussion involves active participation of the audience and a chance to express motivations corresponding to different alternatives, the audience might be more ready "to make up its mind," that is, to make a decision after a group discussion than after a lecture. A group discussion gives the leader a better indication of where the audience stands and what particular obstacles have to be overcome.

In the experiment on hand, we are dealing with a group decision after discussion. The decision, itself, takes but a minute or two. (It was done through raising of hands as an answer to the question: Who would like to serve kidney, sweetbreads, beef hearts next week?) The act of decision, however, should be viewed as a very important process of giving dominance to one of the alternatives, serving or not serving. It has an effect of freezing this motivational constellation for action. We will return to this point later.

3. *Individual versus Group.* The experiment does not try to bring about a change of food habits by an approach to the individual, as such. Nor does it use the "mass approach" characteristic of radio and newspaper propaganda. Closer scrutiny shows that both the mass approach and the individual approach place the individual in a quasi-private, psychologically isolated situation with himself and his own ideas. Although he may, physically, be part of a group listening to a lecture, for example, he finds himself, psychologically speaking, in an "individual situation."

The present experiment approaches the individual as a member of a face-to-

face group. We know, for instance, from experiments in level of aspiration [3] that goal setting is strongly dependent on group standards. Experience in leadership training and in many areas of re-education, such as re-education regarding alcoholism or delinquency,[4] indicates that it is easier to change the ideology and social practice of a small group handled together than of single individuals. One of the reasons why "group carried changes" are more readily brought about seems to be the unwillingness of the individual to depart too far from group standards; he is likely to change only if the group changes. We will return to this problem.

One may try to link the greater effectiveness of group decision procedures to the fact that the lecture reaches the individual in a more individualistic fashion than group discussion. If a change of sentiment of the group becomes apparent during the discussion, the individual will be more ready to come along.

It should be stressed that in our case the decision which follows the group discussion does not have the character of a decision in regard to a group goal; it is rather a decision about individual goals in a group setting.

4. *Expectation.* The difference between the results of the lectures and the group decision may be due to the fact that only after group decision did the discussion leader mention that an inquiry would be made later as to whether a new food was introduced into the family diet.

5. *Leader Personality.* The difference in effectiveness may be due to differences in leader personality. The nutritionist and the housewife who did the lecturing were persons of recognized ability, experience, and success. Still, Mr. Bavelas, who led the discussion and subsequent decision, is an experienced group worker and doubtless of unusual ability in this field.

To determine which of these or other factors are important, a number of systematic variations have to be carried out. To determine, for instance, the role of the decision as such, one can compare the effect of group discussion with and without decision. To study the role of group involvement and the possibility of sensing the changing group sentiment, one could introduce decisions after both, lecture and discussion, and compare their effects.

The following experiments represent partly analytical variations, partly repetitions with somewhat different material.

Lecture versus Group Decision (Neighborhood Groups). Dana Klisurich, under the direction of Marian Radke, conducted experiments with 6 groups of housewives composed of 6–9 members per group. She compared the effect of a lecture with that of group decision. The topic for these groups was increasing home consumption of milk, in the form of fresh or evaporated milk or both.[5]

The procedure followed closely that described above. Again there was no attempt at high-pressure salesmanship. The group discussion proceeded in a step-by-step way, starting again with "what housewives in general might do" and only then leading to the individuals present. The lecture was kept as interesting as possible. The knowledge transmitted was the same for lecture and group decision.

A check-up was made after two weeks and after four weeks. As in the previous experiments, group decision showed considerably greater effectiveness, both after two weeks and after four weeks and for both fresh and evaporated milk (Figs.

[3] K. Lewin, "Behavior and Development as a Function of the Total Situation" in L. Carmichael (ed.), *Manual of Child Psychology* (New York: John Wiley, 1946), pp. 791–844.

[4] K. Lewin and P. Grabbe (eds.), "Problems of Re-education," *J. Soc. Issues*, (August) 1945, I, No. 3.

[5] M. Radke and D. Klisurich, Experiments in Changing Food Habits. Unpublished manuscript.

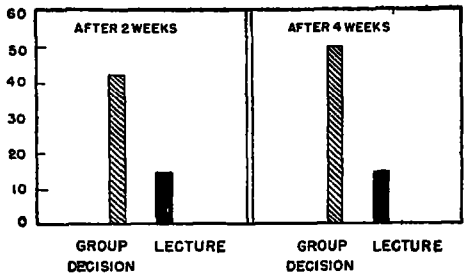


FIG. 4. Percentage of mothers reporting an increase in the consumption of fresh milk.

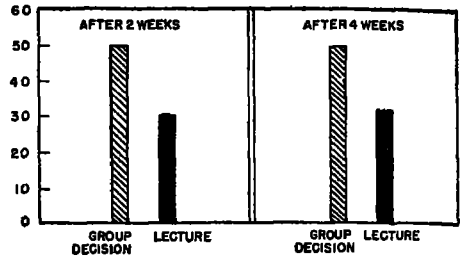


FIG. 5. Percentage of mothers reporting an increase in the consumption of evaporated milk.

4 and 5). This experiment permits the following conclusions:

1. It shows that the greater effectiveness of the group decision in the first experiment is not merely the result of the personality or training of the leader. The leader was a lively person, interested in people, but she did not have particular training in group work. She had been carefully advised and had had a try-out in the group decision procedure. As mentioned above, the leader in lecture and group decision was the same person.

2. The experiment shows that the different effectiveness of the two procedures is not limited to the foods considered in the first experiment.

3. It is interesting that the greater effectiveness of group decision was observable not only after one week but after two and four weeks. Consumption after group decision kept constant during that period. After the lecture it showed an insignificant increase from the second to the fourth week. The degree of permanency is obviously a very important aspect of any changes in group life. We will come back to this point.

4. As in the first experiment, the subjects were informed about a future check-up after group decision but not after the lecture. After the second week, however, both groups knew that a check-up had been made and neither of them was informed that a second check-up would follow.

5. It is important to know whether group decision is effective only with tightly knit groups. It should be noticed that in the second experiment the groups were composed of housewives who either lived in the same neighborhood or visited the nutrition information service of the community center. They were not members of a club meeting regularly as were the Red Cross groups in the first experiment. On the other hand, a good proportion of these housewives knew each other. This indicates that decision in a group setting seems to be effective even if the group is not a permanent organization.

Individual Instruction versus Group Decision. For a number of years, the state hospital in Iowa City has given advice to mothers on feeding of their babies. Under this program, farm mothers who have their first child at the hospital meet with a nutritionist for from 20–25 minutes before discharge from the hospital to discuss feeding. The mother receives printed advice on the composition of the formula and is instructed in the importance of orange juice and cod liver oil.

There had been indication that the effect of this nutrition program was not very satisfactory. An experiment was carried out by Dana Klisurich under the direction of Marian Radke to compare the effectiveness of this procedure with that of group decision.[6]

With some mothers individual instruction was used as before. Others were

[6] M Radke and D. Klisurich, Experiments in Changing Food Habits. Unpublished manuscript.

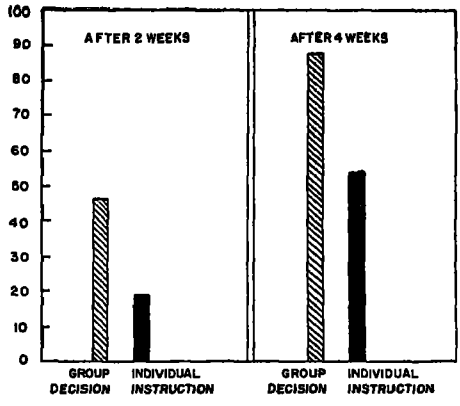


FIG. 6. Percentage of mothers following completely group decision or individual instruction in giving cod liver oil.

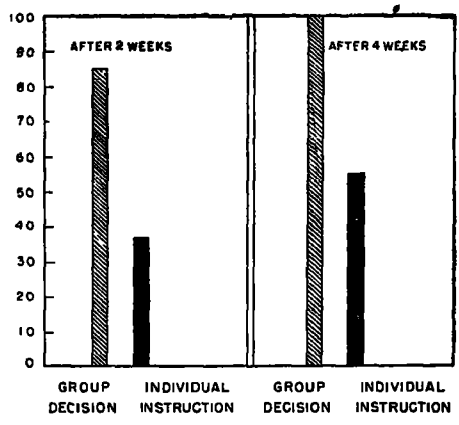


FIG. 7. Percentage of mothers following completely group decision or individual instruction in giving orange juice.

divided into groups of six for instruction on and discussion of baby feeding. The manner of reaching a decision at the end of this group meeting was similar to that used in the previous experiments. The time for the six mothers together was the same as for one individual, about 25 minutes.

After two weeks and after four weeks, a check was made on the degree to which each mother followed the advice on cod liver oil and orange juice. Figures 6 and 7 show the percentage of individuals who completely followed the advice. The group decision method proved far superior to the individual instruction. After four weeks every mother who participated in group decision followed exactly the prescribed diet in regard to orange juice.

The following specific results might be mentioned:

1. The greater effect of group decision in this experiment is particularly interesting. Individual instruction is a setting in which the individual gets more attention from the instructor. Therefore, one might expect the individual to become more deeply involved and the instruction to be fitted more adequately to the need and sentiment of each individual. After all, the instructor devotes the same amount of time to one individual as he does to six in group decision. The result can be interpreted to mean either that the amount of individual involvement is greater in group decision or that the decision in the group setting is itself the decisive factor.

2. Most of the mothers were not acquainted with each other. They returned to farms which were widely separated. Most of them had no contact with each other during the following four weeks. The previous experiment had already indicated that the effectiveness of group decision did not seem to be limited to well-established groups. In this experiment the absence of social relations among the mothers before and after the group meeting is even more clearcut.

3. The data thus far do not permit reliable quantitative, over-all comparisons. However, they point to certain interesting problems and possibilities. In comparing the various experiments concerning the data two weeks after group decision, one finds that the percentage of housewives who served kidneys, beef hearts or sweetbreads is relatively similar to the percentage of housewives who increased the consumption of fresh milk or evaporated milk or of mothers who followed completely the

diet of cod liver oil with their babies. The percentages lie between 32 and 50. The percentage in regard to orange juice for the baby is clearly higher, namely, 85 percent. These results are surprising in several respects. Mothers are usually eager to do all they can for their babies. This may explain why a group decision in regard to orange juice had such a strong effect. Why, however, was this effect not equally strong on cod liver oil? Perhaps, giving the baby cod liver oil is hampered by the mothers' own dislike of this food. Kidneys, beef hearts, and sweetbreads are foods for which the dislike seems to be particularly deep-seated. If the amount of dislike is the main resistance to change, one would expect probably a greater difference between these foods and, for instance, a change in regard to fresh milk. Of course, these meats are particularly cheap and the group decision leader was particularly qualified.

4. The change after lectures is in all cases smaller than after group decision. However, the rank order of the percentage of change after lectures follows the rank order after group decision, namely (from low to high), glandular meat, fresh milk, cod liver oil for the baby, evaporated milk for the family, orange juice for the baby.

The constancy of this rank order may be interpreted to mean that one can ascribe to each of these foods—under the given circumstances and for these particular populations—a specific degree of "resistance to change." The "force toward change" resulting from group decision is greater than the force resulting from lecture. This leads to a difference in the amount (or frequency) of change for the same food without changing the rank order of the various foods. The rank order is determined by the relative strength of their resistance to change.

5. Comparing the second and the fourth week, we notice that the level of consumption remains the same or increases insignificantly after group decision and lecture regarding evaporated or fresh milk. A pronounced increase occurs after group decision and after individual instruction on cod liver oil and orange juice, that is, in all cases regarding infant feeding. This seems to be a perplexing phenomenon if one considers that no additional instruction or group decision was introduced. On the whole, one may be inclined to expect weakening effect of group decision with time and therefore a decrease rather than an increase of the curve. To understand the problems involved, it is essential to formulate the question of condition of social change on a more theoretical level.

Quasi-stationary Social Equilibria and the Problem of Permanent Change. 1. *The Objective of Change.* The objective of social change might concern the nutritional standard of consumption, the economic standard of living, the type of group relation, the output of a factory, the productivity of an educational team. It is important that a social standard to be changed does not have the nature of a "thing" but of a "process." A certain standard of consumption, for instance, means that a certain action—such as making certain decisions, buying, preparing, and canning certain food in a family—occurs with a certain frequency within a given period. Similarly, a certain type of group relations means that within a given period certain friendly and hostile actions and reactions of a certain degree of severity occur between the members of two groups. Changing group relations or changing consumption means changing the level at which these multitude of events proceed. In other words, the "level" of consumption, of friendliness, or of productivity is to be characterized as the aspect of an ongoing social process.

Any planned social change will have to consider a multitude of factors characteristic for the particular case. The change may require a more or less unique

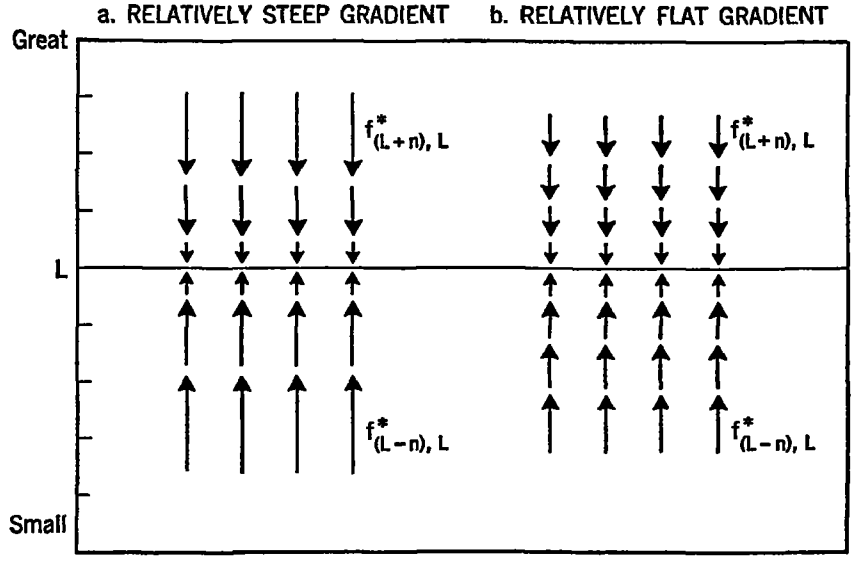


FIG. 8. Gradients of resultant forces (f*).

combination of educational and organizational measures; it may depend upon quite different treatments or ideology, expectation and organization. Still, certain general formal principles always have to be considered.

2. *The Conditions of a Stable Quasi-stationary Equilibrium.* The study of the conditions for change begins appropriately with an analysis of the conditions for "no change," that is, for the state of equilibrium.

From what has been just discussed, it is clear that by a state of "no social change" we do not refer to a stationary but to a quasi-stationary equilibrium; that is, to a state comparable to that of a river which flows with a given velocity in a given direction during a certain time interval. A social change is comparable to a change in the velocity or direction of that river.

A number of statements can be made in regard to the conditions of quasi-stationary equilibrium. (These conditions are treated more elaborately elsewhere.[7])

(A) The strength of forces which tend to lower that standard of social life should be equal and opposite to the strength of forces which tend to raise its level. The resultant of forces on the line of equilibrium should therefore be zero.

(B) Since we have to assume that the strength of social forces always shows variations, a quasi-stationary equilibrium presupposes that the forces against raising the standard increase with the amount of raising and that the forces against lowering increase (or remain constant) with the amount of lowering. This type of gradient which is characteristic for a "positive central force field"[8] has to hold at least in the neighborhood of the present level (Fig. 8).

(C) It is possible to change the strength of the opposing forces without changing the level of social conduct. In this case the tension (degree of conflict) increases.

[7] K. Lewin, "Problems of Group Dynamics and the Integration of the Social Sciences: I Social Equilibria," *J. Hum. Relations* (in press, 1947).

[8] *Ibid.*

3. *Two Basic Methods of Changing Levels of Conduct.* For any type of social management, it is of great practical importance that levels of quasi-stationary equilibria can be changed in either of two ways: by adding forces in the desired direction, or by diminishing opposing forces. If a change from the level L_1 to L_2 is brought about by increasing the forces toward L_2, the secondary effects should be different from the case where the same change of level is brought about by diminishing the opposing forces.

In both cases the equilibrium might change to the same new level. The secondary effect should, however, be quite different. In the first case, the process on the new level would be accompanied by a state of relatively high tension; in the second case, by a state of relatively low tension. Since increase of tension above a certain degree is likely to be paralleled by higher aggressiveness, higher emotionality, and lower constructiveness, it is clear that as a rule the second method will be preferable to the high pressure method.

The group decision procedure which is used here attempts to avoid high pressure methods and is sensitive to resistance to change. In the experiment by Bavelas on changing production in factory work (as noted below), for instance, no attempt was made to set the new production goal by majority vote because a majority vote forces some group members to produce more than they consider appropriate. These individuals are likely to have some inner resistance. Instead a procedure was followed by which a goal was chosen on which everyone could agree fully.

It is possible that the success of group decision and particularly the permanency of the effect is, in part, due to the attempt to bring about a favorable decision by removing counterforces within the individuals rather than by applying outside pressure.

The surprising increase from the second to the fourth week in the number of mothers giving cod liver oil and orange juice to the baby can probably be explained by such a decrease of counterforces. Mothers are likely to handle their first baby during the first weeks of life somewhat cautiously and become more ready for action as the child grows stronger.

4. *Social Habits and Group Standards.* Viewing a social stationary process as the result of a quasi-stationary equilibrium, one may expect that any added force will change the level of the process. The idea of "social habit" seems to imply that, in spite of the application of a force, the level of the social process will not change because of some type of "inner resistance" to change. To overcome this inner resistance, an additional force seems to be required, a force sufficient to "break the habit," to "unfreeze" the custom.

Many social habits are anchored in the relation between the individuals and certain group standards. An individual P may differ in his personal level of conduct (L_P) from the level which represents group standards (L_{Gr}) by a certain amount. If the individual should try to diverge "too much" from group standards, he would find himself in increasing difficulties. He would be ridiculed, treated severely and finally ousted from the group. Most individuals, therefore, stay pretty close to the standard of the groups they belong to or wish to belong to. In other words, the group level itself acquires value. It becomes a positive valence corresponding to a central force field with the force $f_{P,L}$ keeping the individual in line with the standards of the group.

5. *Individual Procedures and Group Procedures of Changing Social Conduct.* If the resistance to change depends partly on the value which the group standard has for the individual, the resistance to change should diminish if one diminishes the strength of the value of the group

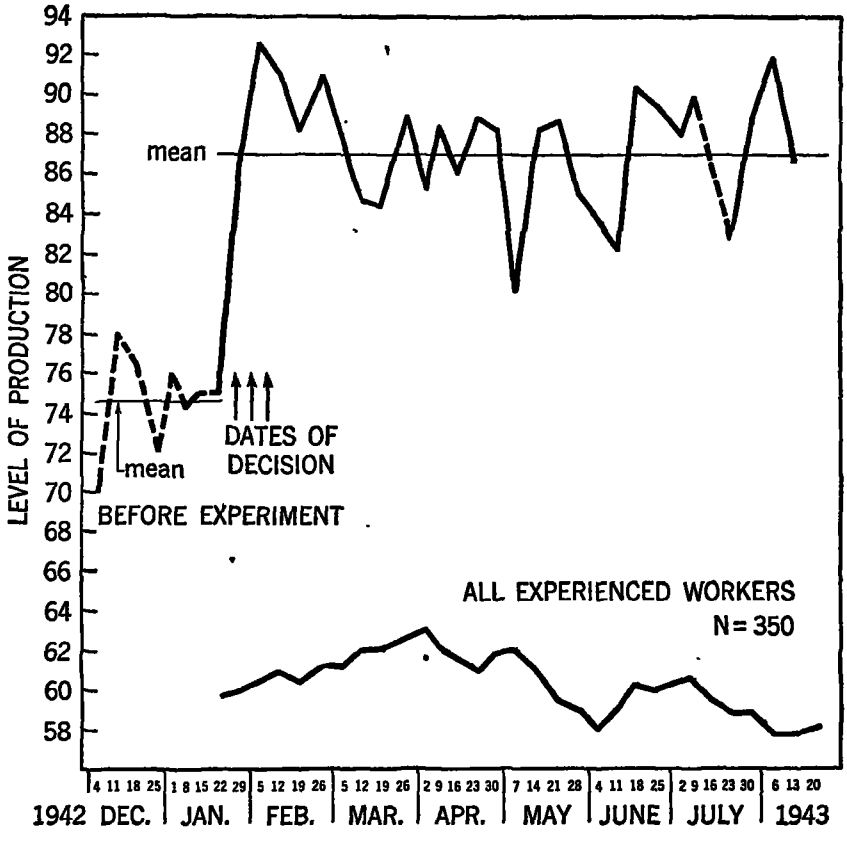


FIG. 9. Effect of group decision on sewing-machine operators.

standard or changes the level perceived by the individual as having social value.

This second point is one of the reasons for the effectiveness of "group carried" changes[9] resulting from procedures which approach the individuals as part of face-to-face groups. Perhaps one might expect single individuals to be more pliable than groups of like-minded individuals. However, experience in leadership training, in changing of food habits, work production, criminality, alcoholism, prejudices, all indicate that it is usually easier to change individuals formed into a group than to change any one of them separately.[10] As long as group standards are unchanged, the individual will resist changes more strongly the farther he is to depart from group standards. If the group standard itself is changed, the resistance which is due to the relation between individual and group standard is eliminated.

6. *Changing as a Three-step Procedure: Unfreezing, Moving, and Freezing of a Level.* A change toward a higher level of group performance is frequently short lived: after a "shot in the arm," group life soon returns to the previous level. This indicates that it does not suffice to define the objective of a planned change in group performance as the reaching of a

[9] N. R. F. Maier, *Psychology in Industry* (Boston: Houghton Mifflin Co., 1946).
[10] K. Lewin and P. Grabbe (eds.) *op. cit.*

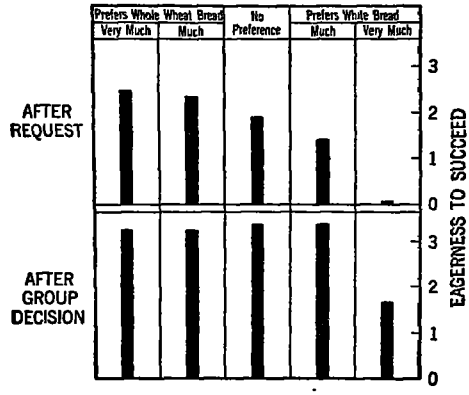


FIG. 10. Relation between own food preferences and eagerness to succeed.

different level. Permanency of the new level, or permanency for a desired period, should be included in the objective. A successful change includes therefore three aspects: unfreezing (if necessary) the present level L_1, moving to the new level L_2, and freezing group life on the new level. Since any level is determined by a force field, permanency implies that the new force field is made relatively secure against change.

The "unfreezing" of the present level may involve quite different problems in different cases. Allport[11] has described the "catharsis" which seems to be necessary before prejudices can be removed. To break open the shell of complacency and self-righteousness, it is sometimes necessary to bring about deliberately an emotional stir-up.

Figure 9 presents an example of the effect of three group decisions of a team in a factory reported by Bavelas [12] which illustrates an unusually good case of permanency of change measured over nine months.

The experiments on group decision reported here cover but a few of the necessary variations. Although in some cases the procedure is relatively easily executed, in others it requires skill and presupposes certain general conditions. Managers rushing into a factory to raise production by group decisions are likely to encounter failure. In social management as in medicine there are no patent medicines and each case demands careful diagnosis.

One reason why group decision facilitates change is illustrated by Willerman.[13] Figure 10 shows the degree of eagerness to have the members of a students' eating cooperative change from the consumption of white bread to whole wheat. When the change was simply requested the degree of eagerness varied greatly with the degree of personal preference for whole wheat. In case of group decision the eagerness seems to be relatively independent of personal preference; the individual seems to act mainly as a "group member."

SUMMARY

Group decision is a process of social management or self management of groups. It is related to social channels, gates and gatekeepers; to the problem of social perception and planning; and to the relation between motivation and action, and between the individual and the group.

Experiments are reported in which certain methods of group decision prove to be superior to lecturing and individual treatment as means of changing social conduct.

The effect of group decision can probably be best understood by relating it to a theory of quasi-stationary social equilibria, to social habits and resistance to change, and to the various problems of unfreezing, changing and freezing social levels.

[11] G. W. Allport, "Catharsis and the Reduction of Prejudice" in K. Lewin and P. Grabbe (eds.) *op. cit.*, 3–10.

[12] N. R. F. Maier, *op. cit.*

[13] K. Lewin "Forces behind Food Habits . . .," *op. cit.*

5.

SOME PATTERNED CONSEQUENCES OF MEMBERSHIP IN A COLLEGE COMMUNITY

By Theodore M. Newcomb

Membership in established groups usually involves the taking on of whole patterns of interrelated behaviors. This was one of the hypotheses pursued in the study which is here reported in part. The group selected for study consisted of the entire student body at Bennington College between the years 1935 and 1939, a group consisting of about 250 women each year. The more than 600 individuals studied during this period did not all achieve equal degrees of membership in the community, however. Hence one of the problems to be investigated was that of the manner in which the patterning of behavior varied with different degrees of assimilation into the community.

The college is situated on a hilltop four miles from the Vermont village from which it takes its name. The year in which this study was begun was the fourth year of its existence, i.e., the first year in which there was a senior class. Its educational plan was somewhat novel, particularly its emphasis upon individual guidance and upon instruction individually and in very small groups. Most of the faculty lived on or near the campus; their relations with the students were characterized by informality, democracy, and *camaraderie*. Virtually all the needs of modern community living were provided on the campus; both students and teachers spent most of their time living, working, and playing together as a community. To a very unusual degree the community was integrated, self-contained and self-conscious. No phrase was more constantly on the lips of its members than "the college community."

Becoming absorbed into such a community involves the taking on of many sorts of new behaviors, not all of which can be investigated in a single study. A single, though rather inclusive, area of adaptation to the college community was therefore selected for special study, namely, *attitudes toward public affairs*. There were two reasons for this selection: (1) methods of attitude measurement were readily available; and (2) there was an unusually high degree of concern, in this community at this time, over a rather wide range of public issues. This latter fact resulted partly from the fact that the college opened its doors during the darkest days of the depression of the 1930's, and its formative period occurred in the period of social change characterized by the phrase "the New Deal." This was also the period of gathering war clouds in Europe. Underlying both of these circumstances, however, was the conviction on the part of the faculty that one of the foremost duties of the college was to acquaint its somewhat over-sheltered students with the nature of their contemporary social world. The resulting interest on the part of students in contemporary public issues manifested itself as a *community-wide*, and not merely a classroom, phenomenon. There were constant lectures, discussions, movies, rallies, and money-raising activities which influenced classroom activities but were not limited to them, and in which

A partial summary of the author's *Personality and Social Change* (New York: Dryden Press, 1943), and "The Influence of Attitude Climate upon Some Determinants of Information," *Journal of Abnormal and Social Psychology*, 1946, XLI, 291–302.

TABLE 1

PERCENT OF PREFERENCES BY STUDENTS FOR PRESIDENTIAL CANDIDATES IN 1936

Candidate	52 Freshmen	40 Sophomores	52 Juniors-Seniors
Landon (Republican)	62	43	15
Roosevelt (Democrat)	29	43	54
Thomas + Browder (Socialist, Communist)	9	15	30

students and faculty jointly participated. It became a mark of "the good Bennington citizen" to acquire an interest in such affairs. Partial evidence for this statement, and for other characteristics associated with membership in this community, is presented below.

An Inclusive Pattern of Declining Conservatism. Juniors and seniors may be presumed to have become community members in a fuller sense than have freshmen or sophomores. In Table 1 it is shown that the political preferences of juniors and seniors in 1936 were far less conservative than those of freshmen and sophomores. (Similar polls in 1940 and in 1944 yielded almost identical results.) These differences are much more marked, though in the same direction, than those shown by similar polls in other American colleges.

As a more exact measure of attitudes toward domestic American issues, an attitude scale called "Political and Economic Progressivism" (PEP) was devised. It had to do primarily with issues made prominent by the New Deal, such as organized labor, public relief, and the role of corporate wealth. The scale was so devised that a high score indicates conservatism (defined in terms of these issues) and a low score nonconservatism. According to this measure, also, conservatism decreased steadily with each succeeding year in the community. During each of the four years covered by the study, mean senior scores were lower than those of juniors, which were lower than those of sophomores, which in turn were lower than those of freshmen. Mean score differences between adjacent classes were not always statistically significant, but during each of the four years freshman-senior differences were highly significant, their critical ratios ranging between 3.9 and 6.5. These differences were not the result of the withdrawal from college of certain students each year; differences of the same magnitude appear when scores of the same individuals as freshmen, as sophomores, as juniors and as seniors are compared. These differences were also found to be much greater than those shown by students either at Williams College or at Skidmore College, to whom the PEP attitude scales were also given. (The writer's original monograph provides evidence indicating that the respondents at both Williams and Skidmore are fairly representative of the entire student populations.) Tables 2 and 3 show the consistency with which PEP scores decline with each succeeding year, at Bennington, and how this decline compares with those at the other two colleges.

Altogether, eleven different attitude scales were employed during the four-year study, most of them only once. Four of them represented inclusive attitudes (PEP, internationalism, social distance, and dissatisfactions) and the others specific issues (Civil War in Spain, CIO, Supreme Court, Soviet Russia, American isolation, the Munich settlement, and the New Deal). Intercorrelations were cal-

TABLE 2

MEAN PEP SCORES, BENNINGTON

Year	Freshmen		Sophomores		Juniors		Seniors	
	N	Mn	N	Mn	N	Mn	N	Mn
1935–36 (fall)	88	74.5	74	66.5	47	68.6	45	65.8
1936–37 (fall)	69	75.8	55	68.5	37	62.3	27	60.1
1937–38 [a]	64	71.9	85	69.1	50	63.7	37	59.9
1938–39 [a]	55	75.9	62	70.0	58	68.5	45	62.7

[a] Fall scores for freshmen, spring scores for others.

TABLE 3

MEAN PEP SCORES, BENNINGTON, WILLIAMS AND SKIDMORE COLLEGES

College	Freshmen		Sophomores		Juniors		Seniors	
	N	Mn	N	Mn	N	Mn	N	Mn
Bennington [a]	276	74.2	241	69.4	166	65.9	155	62.4
Williams	95	76.1	114	69.4	74	70.7	36	71.2
Skidmore	83	79.9	53	78.1	70	77.0	46	74.1

[a] Totals for four years.

TABLE 4

SUMMARY OF INTERCORRELATIONS AMONG VARIOUS ATTITUDES

	Freshmen		*Juniors-Seniors*
	Fall term	Spring term	
Mean r	.35	.43	.48
Range of r's	.02 to .60	.10 to .71	.18 to .79
Number of r's	11	31	42
Number of reliable r's [a]	5	24	40

[a] Correlation coefficients equal to four times their probable errors, or more, are considered reliable.

culated between scores on all scales given during the same year. All intercorrelations were positive, without exception (high scores being consistently assigned to "conservative" attitudes, as the term was commonly applied to each issue at the time). For each college class 42 such intercorrelations were calculated; they are summarized in Table 4. Intercorrelations obtained for freshmen during their first term in the community are distinguished from those obtained during the second term, since second-term freshmen have already become assimilated into the community to a noticeable degree.

The inclusive pattern of attitude change may also be seen in the mean

TABLE 5

CRITICAL RATIOS OF MEAN ATTITUDE DIFFERENCES BETWEEN FRESHMEN AND JUNIORS-SENIORS

Attitude toward	Critical ratios
PEP	3.9; 6.5; 4.6; 4.6
Internationalism	3.2
Civil War in Spain	3.4
CIO	3.2
Supreme Court reform	4.3
New Deal	4.2
Dissatisfactions	3.3
American isolation	2.0
Munich settlement	2.1
Social distance	1.7
Soviet Russia	0.5

score differences between freshmen and juniors-seniors, as shown in Table 5. For the eleven attitudes measured, juniors-seniors are reliably less conservative than freshmen in seven, unreliably less conservative in three, and not at all in one. (Differences of three times their standard deviations are considered reliable.)

Information about Public Affairs. Accompanying many of the scales of attitudes toward various public issues were tests of information concerning those same issues. In addition, a Public Affairs test (published by the Cooperative Test Service, and widely used among American colleges) was routinely administered to all freshmen, all sophomores (with the exception of one class) and all seniors in the college. The following data will show that becoming assimilated into the community involves characteristic changes in information, as well as in attitudes.

Scores on the Public Affairs information test, dealing with a wide range of contemporary issues, show a consistent relationship to scores on two similarly inclusive attitude scales—the PEP scale and a scale of internationalist (vs. isolationist) attitudes, throughout the four years of the study, as shown in Table 6. This relationship is shown most clearly if earlier and later scores for the same individuals are used, rather than comparing coefficients based upon large freshmen groups with much smaller senior groups. None of the freshmen correlations is significant; those of the same individuals as sophomores or as seniors are highly so. As freshmen, conservatives are almost as likely to be well informed as nonconservatives; a year later the nonconservatives among the same group are a good deal more likely to be better informed than the conservatives.

The consistency with which Public Affairs information scores increased with declining PEP scores is shown in Table 7, in which mean information scores for the highest, middle and lowest thirds of each senior class, in respect to PEP scores, are shown. In spite of the very small numbers involved, the differences between the lowest and highest thirds, in Table 7, are statistically reliable in three of four cases; three of the critical ratios are greater than 3.0, and the fourth 2.4. The higher information scores on the part of the least conservative group are not associated with higher "intelligence" scores; scores on the Psychological Examination of the American Council on Education are not related to PEP scores, all correlations being consistently at or near zero.

Information tests were given concerning various specific issues concerning which attitude scales were also administered. Data concerning only one of these, the Civil War in Spain (then in progress) are presented here. Care was taken to include information items of strictly neutral content, that is, such that knowledge of the correct answer would not dispose the individual toward either a favorable or unfavorable attitude. For the entire Bennington population the correlation between pro-Loyalist attitude and "neutral" information concerning the Spanish Civil War was .45. Since the Bennington climate had been

TABLE 6

CORRELATIONS BETWEEN SCORES ON PUBLIC AFFAIRS TEST AND ATTITUDE SCORES OF SAME INDIVIDUALS IN DIFFERENT YEARS

Attitude measured	Years	As freshmen		As sophomores		As seniors	
		N	r	N	r	N	r
PEP	1936, 1937	55	−.03	55	−.39		
PEP	1937, 1938	48	−.11	48	−.36		
PEP	1935, 1939	42	+.11			42	−.43
Internationalism	1937, 1938	48	−.16	48	−.40		
Internationalism	1935, 1939	42	−.08			42	−.39

TABLE 7

MÉAN PUBLIC AFFAIRS INFORMATION SCORES OF SENIORS, CLASSIFIED BY SENIOR PEP SCORES

Seniors	Lowest third in PEP		Middle third in PEP		Highest third in PEP	
	N	Mn	N	Mn	N	Mn
Graduating in 1936	15	77.7	13	75.2	15	57.4
Graduating in 1937	13	75.4	13	64.9	13	54.6
Graduating in 1938	12	73.2	12	58.2	13	52.2
Graduating in 1939	16	73.3	15	68.1	16	54.5

distinctly pro-Loyalist (movies, speakers, and money-raising activities in behalf of the Loyalists had been frequent), it seemed desirable to use as controls a student community where the attitude climate was known to be anti-Loyalist, and another where it was more or less indifferent. A Roman Catholic university and Williams College, respectively, were chosen for this purpose. The differences among the three communities in respect to this issue may be seen in Tables 8 and 9.

Concerning this issue two other information tests were given in all three communities. One consisted of true-or-false items, the true answers to which were presumably disposing toward pro-Loyalist attitude (e.g., the statement, true at the time, that "General Franco's government has been recognized as the legitimate power in Spain only by governments which are overtly fascist, or near-fascist."). The other consisted of statements the true answers to which were presumably disposing toward anti-Loyalist attitude (e.g., the true statement that "Indisputable evidence has been adduced showing that some clergy have been executed and many persecuted by Loyalist sympathizers."). Results from these tests appear in Tables 10 and 11, which show that (1) responses to these two tests, though both are based upon "facts," are quite different in all three communities; and (2) that Bennington juniors and seniors distinguish much more clearly between the two tests than do freshmen.

The conspicuous differences between

TABLE 8

PERCENTAGE OF RESPONSES TO ATTITUDE STATEMENT: "I HOPE THE LOYALISTS WIN THE WAR."

Attitude	Bennington (N = 174)	Williams (N = 312)	Catholic (N = 83)
Strongly agree	42	28	4
Agree	40	36	7
Uncertain	12	24	13
Disagree	4	9	26
Strongly disagree	2	3	50

TABLE 9

MEANS AND DISPERSIONS OF SCORES OF ATTITUDE TOWARD THE SPANISH CIVIL WAR (LOW SCORES PRO-LOYALIST)

	Bennington	Williams	Catholic
Mean	41.2	43.6	53.6
Standard deviation	7.2	9.8	6.8
Range	18–61	19–70	39–74

comparable correlations at Bennington and the Catholic university are explainable in terms of their opposite attitude climates in respect to this issue, as indicated by their enormously different mean attitude scores (critical ratio 13.1) and their small dispersions, compared to Williams. As a result of these attitude climates, students in either community found it easier to get one sort of information than the other; they were more likely to acquire and to retain that kind of information which supported their attitudes than the kind which undermined them; and both information and attitudes were simultaneously influenced by degree of concern over the issue. At Bennington those most concerned over the issue became most pro-Loyalist in attitude; they acquired and retained most information supporting the attitude; and they were least able to accept as "fact" such information as tended to undermine their attitudes. Those most concerned over the issue at the Catholic university became most anti-Loyalist in attitude, and were most likely to retain and to reject, respectively, those kinds of information which supported or undermined their attitudes.

It is of particular significance that at Bennington attitudes and information were created community-wise, and not merely in relation to courses of study pursued. At Williams both pro-Loyalist attitude and neutral information scores were considerably higher on the part of students in Social Science courses than on the part of other students; at Bennington no such difference appeared. Quite clearly it was the community climate, not courses of instruction, which led to the attitude-information pattern characteristic of Bennington students.

Individual Prestige Associated with Declining Conservatism. Frequency of choice as one of five students "most worthy to represent the College" at an intercollegiate gathering was used as a measure of individual prestige; nomina-

TABLE 10

MEAN INFORMATION SCORES CONCERNING CIVIL WAR IN SPAIN

Type of information	Bennington						Williams		Catholic	
	Freshmen		Juniors-Seniors		All classes					
	N	Mn	N	Mn	N	Mn	N	Mn	N	Mn
Neutral	45	5.5	41	8 3	139	7 4	312	7.0	83	4.1
Pro-Loyalist	48	8.2	67	12.0	174	9 8	312	10.1	83	1.7
Anti-Loyalist	48	3.2	67	1.9	174	2.7	312	1.2	83	7.2

TABLE 11

CORRELATIONS OF ATTITUDE AND INFORMATION SCORES CONCERNING THE SPANISH CIVIL WAR

Type of information	Bennington						Williams		Catholic	
	Freshmen		Juniors-Seniors		All classes					
	N	r	N	r	N	r	N	r	N	r
Neutral	45	−.23	41	−.54	139	−.45	312	−.26	83	+.38
Pro-Loyalist	48	−.16	67	−.59	174	−.57	312	−.34	83	−.08
Anti-Loyalist	48	−.04	67	+.08	174	−.04	312	+.06	83	+.51

TABLE 12

MEAN PEP SCORES, CLASSIFIED ACCORDING TO FREQUENCY OF BEING CHOSEN AS REPRESENTATIVE (1938)

Frequency of choice	Freshmen		Sophomores		Juniors-Seniors		Entire college	
	N	Mean	N	Mean	N	Mean	N	Mean
40–89	—	—	3	60.3	5	50.4	8	54.1
12–39	—	—	5	65.6	15	57.6	20	59.7
5–11	—	—	5	65.3	18	62.2	23	62.7
2–4	10	64.6	18	68.6	19	61.6	47	65.3
1	12	63.4	17	68.6	15	62.1	44	65.0
0	61	72.8	39	71.3	14	69.0	114	71.7
Total	83	70.9	87	68.8	86	62.1	256	67.1

tions were submitted in sealed envelopes by 99 percent of the students in the spring of 1938 and again in 1939. The relationship between PEP nonconservatism and prestige, as thus measured, was almost identical in 1938 and in 1939; results for the former year appear in Table 12. The nonconservatism of those with high

TABLE 13

MEAN PEP SCORES, ACCORDING TO REPUTATION FOR IDENTIFICATION WITH THE COMMUNITY

Reputation Score	N	Mean PEP Score
+15 or more	15	54.4
+5 to +14	23	60.6
+4 to −4	63	65.3
−5 to −14	32	67.9
−15 or less	10	68.2

prestige is not merely the result of the fact that juniors and seniors are characterized by both high prestige and nonconservatism; in each college class, those who have prestige are less conservative than those who have less prestige.

Reputation for Community Citizenship. Most students participated actively in community affairs, took a good deal of pride in the college, and manifested in various ways their general enthusiasm for it, but there were nevertheless individual differences in these respects. Reputation scores of various aspects of "community citizenship" were therefore obtained. "Guess-Who" ratings were made by a group of 24 students, carefully selected so as to represent every cross-section and grouping of importance within the college. Each of these 24 judges named three individuals from each class who were reputedly most extreme in each of 28 characteristics related to community citizenship. As indicated by the partial results reproduced in Table 13, there is a close relationship between reputation for identification with the community and nonconservatism, in spite of the fact that no reference whatever was made to the latter characteristic when the judges made their ratings. (The "reputation scores" in Table 13 are composite scores based upon the frequency with which individuals are named in five items dealing with "identification with the community" minus the number of times named in five other items dealing with "negative community attitude." Examples of the former items are "absorbed in college community affairs" and "influenced by community expectations regarding codes, standards, etc."; examples of the latter are "indifferent to activities of student committees" and "resistant to community expectations regarding codes, standards, etc.")

The fact that nonconservatism is associated with interest in public affairs is particularly well illustrated by reputation scores for the item "most absorbed in national and international public affairs." Among a group of 22 juniors and seniors whose PEP scores were extremely low, exactly half were named more than once as being extreme in this characteristic, and seven were named five times or more. Among another group of 22 juniors and seniors whose PEP scores were extremely high, only one was mentioned more than once as extreme in this characteristic, and none was named as many as five times. Marked interest in public affairs is associated with nonconservative attitude, in this community, and both are associated with prestige and "good citizenship."

Awareness of Community Attitude Climate. Several indices of "good citizenship" or "community assimilation" have been shown to be related to the acquiring of nonconservative attitudes. These indices are all based upon observed behaviors, either pencil-and-paper behavior or the kind of day-to-day behavior upon which reputations were judged. There is also reason to believe that the way in which the individual views the community is related to her manner of adaptation to it. Perceptual habits, as well as overt behaviors, should provide an index of community assimilation. More fully stated, her own perception of her relationship to the community is presumably a determinant of her behavior. This self-view of own relationship to the community we shall term "subjective role."

TABLE 14

MEAN PERCENT ESTIMATES OF CONSERVATIVE RESPONSE, BY THOSE RESPONDING CONSERVATIVELY AND NONCONSERVATIVELY

Estimates by	Mean Estimate of Response		
	Freshmen	Juniors-Seniors	Faculty
30 seniors, concerning items answered conservatively	68	53	46
30 seniors, concerning items answered nonconservatively	59	25	15
34 freshmen, concerning items answered conservatively	63	58	54
34 freshmen, concerning items answered nonconservatively	47	35	30

In order to obtain an index of subjective role, subjects were asked to respond in two ways to a number of attitude statements taken from the PEP scale: first, to indicate agreement or disagreement (for example, with the statement, "The budget should be balanced before the government spends any money on social security."); and secondly, to estimate what percent of freshmen, of juniors-seniors, and of faculty would agree with the statement. Table 14, in which own responses to PEP items are compared with the same individual's estimates of conservative response by freshmen and by juniors-seniors to the same items, shows that (1) seniors estimate the difference between freshmen and juniors-seniors to be a good deal greater than do freshmen; and (2) conservatives, both freshmen and seniors, estimate differences between freshmen and juniors-seniors to be much less than do nonconservatives. Those who are in fact nonconservative regarding a given issue tend to think of freshmen as more conservative than themselves on that issue, but to think of juniors-seniors and faculty as much less so than freshmen. Those who are in fact conservative regarding a given issue tend to think of all three groups as being also conservative, with only slight differences among the three groups. Both conservative and nonconservative seniors tend to think of themselves as agreeing with the majority of their class, but the conservatives have a less realistic view of the attitudes of their classmates than do the nonconservatives.

In Table 15 are combined the percent estimates of all subjects, regardless of whether their own responses were conservative or not. Table 15 also includes comparable responses by 252 Skidmore students, from all four classes, together with the actual responses of the several groups at both colleges, for purposes of comparison with the estimated responses. These data show that (1) all Skidmore students, on the average, underestimate the degree to which juniors and seniors are less conservative than freshmen; (2) Bennington freshmen slightly underestimate this difference; and (3) Bennington seniors greatly overestimate it; most of this overestimation (as shown in Table 14) is attributable to the great majority of estimates by seniors on items which they themselves answered nonconservatively (80 percent of all items); estimates on these items greatly exaggerate the conservatism of freshmen. Freshmen are actually more conservative than juniors-seniors by a greater amount at Bennington than at Skidmore, but at Bennington

TABLE 15

ACTUAL AND ESTIMATED PERCENTAGES OF CONSERVATIVE RESPONSE AT BENNINGTON AND AT SKIDMORE

	Percent Conservative Response by		
	Freshmen	Juniors-Seniors	Faculty
Actual (Bennington)	34	20	10
As estimated by Bennington seniors .	61	30	21
As estimated by Bennington freshmen .	52	43	39
Actual (Skidmore)	47	36	—
As estimated by Skidmore seniors . .	52	48	42
As estimated by Skidmore freshmen .	54	52	50

the actual differences are commonly supposed to be a good deal greater than they are, particularly by seniors, by those who are themselves nonconservative and (as shown in Tables 12 and 13) by those who have prestige and reputation for "good citizenship." Assimilation into the Bennington community includes, for the average student, the acquiring of the subjective role of going along with the majority who are becoming less conservative.

Personality Patterns and Community Assimilation. The preceding data have to do with majority trends, and with the differences between those who become less and those who become more assimilated into the community. These data tell us nothing about individual exceptions to the generalizations, nor do they tell us much about the personality characteristics of the individuals from whom the quantitative data are drawn. Fortunately, a considerable body of personality data was available, and by assembling them it is possible to understand a good deal about the psychological processes by which students did or did not come to take on the characteristic community patterns, as described above.

Fairly intensive personality studies were made of a few subjects, rather than routine and hasty ones of all. Altogether 43 subjects were thus studied, chosen (1) as being from the classes entering in 1935 and in 1936 (the two classes which had participated in the study as freshmen and for three or four years thereafter); and (2) as being roughly in the most or the least conservative quarter of their classes in 1939 (i.e., as having PEP scores of + .5 standard deviations or more, or − .5 standard deviations or less). One of the major sources of personality data was official college records —detailed reports from teachers, who included much information about personality characteristics as well as about academic performance; and from counselors, who worked individually with students, knew them extremely well, and twice each year wrote careful statements about personality, community adjustment, and academic progress. The second major source was a series of detailed interviews by the investigator concerning each subject—with the student herself, as she neared graduation; with one or more of her counselors; and with the college psychiatrist, who provided a wealth of detailed information and professional understanding.

On the basis of such evidence, together with the quantitative data, comparable data were assembled for each of the 43 selected subjects; care was taken not to record any trait as applying to a given subject unless independently veri-

fied from two or more sources, not including the subject herself. A "hypothesis" was then drawn up concerning the dynamics of each subject's attitude development in the community; in most cases the subject herself contributed a good deal toward formulating this hypothesis.

The significant thing about these hypotheses was that they fell into a very few patterns. With only minor deviations, each of 19 conservative subjects fitted into one or another of four patterns, and each of 24 nonconservatives into one or another of four quite different patterns. These patterns, moreover, correspond to objective distinctions, as well as to more or less distinct groupings of personality data of less objective sort. The objective indices (which also correspond to personality differences) were those of reputation for community identification, and of own relationship to classmates, as self-perceived in terms of attitude similarities or differences.

Thus the four groups of conservatives were:[1]

1. those reputedly negativistic toward the community, and aware of their own conservatism;
2. those reputedly negativistic toward the community, and not aware of their own conservatism;
3. those not reputedly negativistic toward the community, and aware of their own conservatism;
4. those not reputedly negativistic toward the community, and not aware of their own conservatism.

The four groups of nonconservatives were:

1. those reputedly active in community affairs, and aware of their own relative nonconservatism;
2. those reputedly active in community affairs, and not aware of their own relative nonconservatism;
3. those not reputedly active in community affairs, and aware of their own relative nonconservatism;
4. those not reputedly active in community affairs, and not aware of their own relative nonconservatism.

Take, for example, the two groups of negativistic conservatives. Those who are not aware of their own relative conservatism, i.e., who believe they are attitudinally typical, are found to be timid and socially insecure,[2] to have small and limited groups of friends, and to come to college with almost no aspirations toward "social success." This latter characteristic is clearly related to their almost complete failure to achieve any sort of "social success" in precollege relationships. The negativistic conservatives who are aware of their own relative conservatism are markedly less retiring and less inhibited, are more socially facile; they do not, like the unawares, tend to belong to compact little friendship groups; unlike the unawares, they had achieved a considerable degree of precollege social success, and came to college with high hopes of continued success—hopes which were doomed to disappointment. In short, the unawares are insulated in tiny social groups; their negativism functions as a protective shell of indifference toward what they cannot cope with; hence their unawareness. The negativism of the awares is an aggressive reaction to the frustration of the ambitions which were at first directed at the total community; hence their awareness.

Among the nonnegativistic conservatives, the distinctions between the awares and the unawares are partly similar to and partly different from the preceding distinctions. The awares have markedly greater self-confidence and possess greater social skills; they are eager and

[1] See the writer's original monograph for the quantitative procedures by which these distinctions were made.

[2] Space forbids the presentation of the data upon the basis of which these generalizations are made. Full documentation is to be found in the writer's monograph.

enthusiastic, whereas the unawares tend to be plodding and conscientious. The awares have considerable prestige, the unawares almost none. Both groups show more than average attachment to and dependence upon parents, but the crucial distinction seems to be that the unawares were so absorbed by home and family conflicts and allegiances as to be scarcely at all susceptible to community-wide college influences, while the awares, equally "loyal" to parents, were capable of maintaining a divided allegiance; i.e., they yielded to all college community influences except those attitudinal ones which would have brought conflict with parents. The unawares, unable to cope with two worlds, participate only superficially in college community life; hence their unawareness. The awares are capable of participating in both worlds, but reject such college influences as would result in home conflict; hence their awareness.

The two groups of nonconservatives who are not reputedly community-active may be described as passively conforming rather than as negativistic, the unawares are considered dependent upon instructors, and anxious to please, while the awares are highly independent. The unawares are eager and enthusiastic, while the awares are not. The awares are more outstanding academically, and it is clear that they have set higher standards for themselves. The unawares believe that they would follow the majority attitude trend in a conservative college, while the awares would not. The unawares describe their major ambitions, on entering college, in terms of friendship rather than of prestige, while the reverse is true of the awares, for whom intellectual prestige is particularly important. Self-interpretations, finally, show the unawares tend to think of their own attitude change as just one aspect of being assimilated into the community; hence their unawareness of their own relative nonconservatism. The awares, however, tend to think of their attitude change as an intellectual achievement in respect to which they have outdistanced most students, and hence their awareness.

The two groups of community-active nonconservatives have much in common. Both are composed of "substantial citizens," hard-working and conscientious, though the unawares are considered more enthusiastic and the awares more persistent. Both groups are high in prestige; both groups had achieved considerable recognition before coming to college, though memories of precollege "failures" are more acute on the part of the unawares. They differ primarily in the following respects: the unawares are more anxious to please, and need more guidance from instructors. The awares are much more commonly described as "meticulous" or "perfectionist," and are more apt to be intellectual leaders. The awares have come to reformulate their ambitions less in terms of personal success and more in terms of the success of "causes." In short, lack of awareness on the part of the one group represents loyal cooperation in respect to approved social attitudes; as "leaders" they must, of course, be slightly "ahead" of the majority, but not too far. The awares, on the other hand, are not only sufficiently secure that they can afford to go beyond the majority, but their awareness is a mark of the hard-won struggle by which they reached their nonconservative positions; hence, of course, they are aware.

In short, it may be said for each of the eight groups that the personality processes which appear to be essentially responsible for whatever attitude adaptation is made are also responsible for whatever degrees of awareness is shown. Those who are conservative because they have avoided the community could scarcely have an opportunity to discover that they are conservative. Those who are conservative because they aimed at leadership, failed, and repudiated what-

ever the community stood for could scarcely fail to be aware of their own conservatism. Those who have acquired more than the average degree of nonconservatism because they are anxious to conform cannot be aware of their own relative extremeness, else they would withdraw to a more moderate position. Those who are extremely nonconservative because they need to excel must be aware that they are somewhat extreme, etc.

There is no magic involved in the discovery that the different dynamic patterns by which individuals arrive at their attitudinal adjustments to the community correspond so closely to the objective classifications according to reputation (here referred to as objective role) and self-perceived relationship to classmates (here referred to as subjective role). Objective roles are assigned, with more or less correctness, by fellow community members on the basis of observable personality characteristics. Among those assigned similar objective roles, different subjective roles are self-assigned on the basis of other personality characteristics. Those for whom objective and subjective roles are similar, according to quantitative data, thus have many personality characteristics in common. These common personality characteristics, moreover, are directly related to the processes of personality adaptation by which attitudes are acquired in this particular community.

Summary

Associated with the process of assimilation into this student community are found an inclusive pattern of attitudes of declining conservatism toward public issues; increasing information concerning them, in particular such kinds of information as serve to support the developing attitudes; increasing individual prestige; increasing reputation for active "good citizenship"; and increasing awareness of the decreasing conservatism of others. The average student is characterized by all these changes to a modest degree; the "typical" leader (whether senior or, more rarely, sophomore or freshman) shows all of them to a considerable degree; the "typical" unassimilated student, whether freshman or senior, is conspicuously lacking in all these characteristics.

Among those who most conspicuously adopt the prevailing norms in respect to attitudes toward public issues, several more or less distinct modes of personal adaptation to the community are found, and certain individuals are exceptions to the general findings concerning personal prestige, reputation for "good citizenship," and awareness of the community attitude trend. These exceptions are specifically related to the characteristic mode of personal adaptation, and both are accounted for in terms of the individual's objective and subjective roles in relation to the community.

Among those who most conspicuously fail to adopt the prevailing norms in respect to attitudes toward public issues, other more or less distinct modes of personal adaptation to the community are found, and again there are certain individual exceptions to the general findings. These exceptions, too, are specifically related to characteristic modes of personal adaptation, and both are accounted for in terms of objective and subjective roles, as measured by quantitative indices.

These findings are consistent with the point of view that a community is distinctive in terms of the objective roles which it recognizes, both approvingly and disapprovingly, and that the individual's adaptation to the community is understandable in terms of his subjective role, seen in relation to the objective roles.

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6.

ATTITUDE TOWARD THE NEGRO OF NORTHERN AND SOUTHERN COLLEGE STUDENTS

By Verner M. Sims and James R. Patrick

Along with the general problem of Negro-white relationships, differences in the attitude of Northerners and Southerners toward the Negro have long been a favorite subject for speculative attack and popular treatment, but a review of the literature reveals but few attempts to get quantitative evidence on the subject. Murphy and Murphy, commenting on the general problem in their *Experimental Social Psychology*, say, "The crying need for research on Negro-white antagonisms has as far as we have discovered, resulted, as yet, in very little exact research."[1] Along with Katz and Allport,[2] these authors give critical reviews of the literature up to 1931, and the writers were unable to find any studies published since this date bearing directly on the subject of geographical differences in attitudes. Even the evidence available is contradictory. Hunter,[3] studying the differences between the attitudes of Columbia College and University of North Carolina students, as well as Northern and Southern adult groups, found the Northerners to have greater "good will" toward the Negro than had the Southerners. Katz and Allport, on the other hand, say that "On the whole a greater aversion was shown toward the Negro by Northern than by Southern students." The differences in findings may be due to differences in the samplings of Northerners and Southerners, or, and seemingly more probable, they may be due to differences in the methods used to measure attitude.

The possession of more refined methods of measurement should make possible a more satisfactory attack on the problem of geographical differences as well as other problems relating to the attitude of whites toward Negroes. An improved procedure seems to be available in the form of Hinckley's Attitude Toward the Negro Scale, one of the series of social attitude scales published by the University of Chicago Press and constructed by the method developed by Thurstone.[4] The reliability of this type of instrument is at least a known or measurable quantity, and evidence of the validity of the general procedure is gradually accumulating, and is seemingly favorable.[5] Although the validity may not be assumed to have been established, there does seem slight doubt that it represents the most satisfactory effort to measure attitudes available today.

The present study is concerned with the use of Hinckley's scale in measuring the attitude toward the Negro of three groups of college students coming from

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[1] G. and L. Murphy, *Experimental Social Psychology* (New York: Harper & Bros., 1931), p. 639.

[2] D. Katz, F. H. Allport, and M. B. Jenness, *Students' Attitudes* (Syracuse: Craftsman Press, 1931), pp. 374–402.

[3] C. W. Hunter, "A Comparative Study of the Relationship Existing between the White and Negro Races in the State of North Carolina and the City of New York," M.A. thesis, Columbia University, summarized by G. and L. Murphy, *op. cit.*, pp. 639–645.

[4] L. L. Thurstone and E. J. Chave, *The Measurement of Attitude* (Chicago: University of Chicago Press, 1930).

[5] P. M. Symonds, *Diagnosing Personality and Conduct* (New York: Century Co., 1931).

different geographical regions, and with the bearing which certain vital and environmental factors may have upon any differences found. The three groups involved were: 156 students coming from Southern homes, chiefly Alabama and neighboring states, and enrolled in psychology classes at the University of Alabama (known here as the Southern students), 115 students coming from Northern homes, chiefly from the Northeastern states, and enrolled in psychology classes in the same institution (known here as North-in-South students), and 97 students from Northern homes, chiefly from Ohio and neighboring states, and enrolled in psychology classes at Ohio University (known here as Northern students). During the first two weeks of the fall term Hinckley's Attitude Toward the Negro, Scale No. 3, Forms A and B, and the Otis Self-Administering Test of Mental Ability, Advanced Examination, Form A, were administered to these three groups of students and at the same time information concerning sex, year in college, size of community from which they came, and father's occupation was obtained.

Attitude Toward the Negro

The average of the scores on Forms A and B of Hinckley's Scale was used as a measure of attitude toward the Negro. The reliability of this measure, found by correlating the two forms and stepping-up the coefficients thus found, was fairly satisfactory, at least for an investigation of group differences. The stepped-up coefficients were: .70 for the Northern group, .78 for the North-in-South group, .73 for the Southern group, and .78 for the three groups combined. The differences in reliability for the three groups have no significance, for, as will be seen later, the ranges of the groups vary and the narrow ranges tend to attenuate the coefficients of correlation.

Frequency distributions of the scores made by the three groups are shown

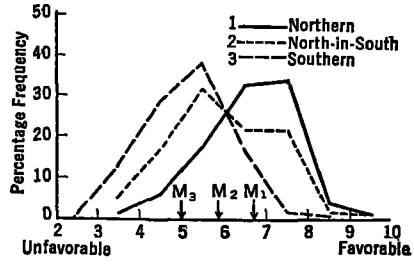


Fig. 1. Distribution of attitude scores for three populations.

graphically in Figure 1, and Table 1 summarizes the statistical facts concerning the three distributions.

There is a decided difference between the average scores of the three groups, the Northern students being most favorable, with a mean score of 6.7, the North-in-South group being less favorable with a mean score of 5.9, and the Southern students least favorable with a mean of 5.0. Only 6 percent of the Southern students reach the mean of the Northern group, while 21 percent reach the mean of the North-in-South group, and 20 percent of these students reach the mean of the Northern group. The differences found are statistically significant. The difference between the Northern students and the North-in-South students is eight times the probable error of the difference, that between the North-in-South and the Southern students is ten times the probable error, and that between the Northern and Southern students is 21 times the probable error. However, the individual differences within the groups are great and the overlapping of groups is considerable, particularly if you consider overlapping of individuals rather than means. The spread is greater in the North-in-South group (which, as will be shown later, probably indicates that their attitude is in a state of flux), but the Northern and Southern students spread out about the same. All of this would suggest the absence of a "stereotyped" attitude, using the term in the sense of a standardized form which the

TABLE 1

SUMMARY OF STATISTICAL FACTS CONCERNING THE THREE DISTRIBUTIONS OF ATTITUDE SCORES

	Northern	North-in-South	Southern	Northern—North-in-South	Northern—Southern	North-in-South—Southern
N	97	115	156			
M	6.7	5.9	5.0			
σ	1.0	1.3	1.0			
Difference between means				.8	1.7	.9
P.E. of D				.10	.08	.09
D/P.E.				8	21	10

attitude takes among certain geographical groups.

There are, though, definite differences in the mean scores of the three populations, and to the extent that they may be considered random groups one would expect to find somewhat the same differences between similar groups. To what extent are they due to the fact that the students came from different sections of the country rather than to other selective factors? And, further, assuming a North and South difference, what is the explanation of the difference between the two groups of Northerners? A completely satisfactory answer to these questions could be obtained only by means of a partial correlation technique or by equating groups on all other factors. Neither of the procedures was possible here. There was, of course, no attempt made to equate the groups on other factors and the numbers are too small and the measures too varied to make partial correlations feasible. However, through an analysis of the sex, intelligence, year in college, size of community from which they came, and parental occupation of the three populations we have been able in some manner at least to answer the questions and at the same time throw light on the relation between attitude toward the Negro and the other factors.

ATTITUDE AND INTELLIGENCE

The mean scores and sigmas for the three groups on the Otis Self-Administering Test of Mental Ability were:

Northern Students	M = 51.8	σ = 10.0
North-in-South Students	M = 51.1	σ = 9.6
Southern Students	M = 50.3	σ = 9.5

The differences in intelligence are not statistically significant and are so slight that even though there were high positive relationships between attitude and intelligence this fact could not account for the differences in attitude found. Actually, there was but slight positive correlation between the two factors. The Pearson coefficient between Attitude score and Otis score for the Northern students was .29 $\pm$.06, for the North-in-South students .13 $\pm$.05, and for the Southern students .11 $\pm$.05. The relatively higher correlation found among the Northern students cannot be considered as statistically significant, yet it is suggestive. The emotional tone of the attitude for those groups that come in more or less intimate contact with the Negro and with the Southern environment may be sufficient to destroy a relationship that one would logically assume to exist between level of intelligence and

TABLE 2

SEX DIFFERENCES IN MEAN ATTITUDE SCORE FOR THE THREE POPULATIONS

Group	Male			Female			Difference	P.E. $_{diff}$	Diff./P.E. $_{diff.}$
	N	M	σ	N	M	σ			
Northern . . .	42	6.3	.8	55	6.8	1.0	.5	.12	4.2
North-in-South . .	104	5.7	1.1	15	6.3	1.0	.6	.20	3.0
Southern . .	81	4.8	1.0	82	5.2	1.0	.4	.10	4.0

favorableness in attitude toward another racial group.

SEX DIFFERENCES IN ATTITUDE

Table 2 summarizes the statistical facts concerning the two sexes for the three populations.

It indicates that there is a slight but consistent sex difference in attitude toward the Negro, the women being more favorable than the men, the Northern women scoring .5 points higher than men, the North-in-South women scoring .6 points higher, and the Southern women .4 points higher. The differences can scarcely be called statistically significant ones, being but four times the probable error for the Northern and Southern groups and three times the probable error for the North-in-South group. However, the consistency with which they appear leads one to believe that such difference does actually exist. Unfortunately the disproportionate distribution of the two sexes in the three geographical groups prevented the combining of the groups in order to increase the numbers and thus reduce the probable error of the measurement.

The relatively large number of males in the North-in-South group is a partial but not complete explanation of the low scores made by this group, for when we consider the sexes separately, we find the same relative differences in attitude for the three geographical groups.

YEAR IN COLLEGE AND ATTITUDE

The year in college should be a rough index of the general maturity of the student, and as such is of interest within itself, but it is particularly interesting for the North-in-South group since it may be taken as a measure of the length of time that these students have been exposed to the Southern environment and to the Southern Negro, and should therefore tell us whether the North-in-South students score low due to their being negatively selected or due to contact with the Southern environment.

Table 3, summarizing the statistical facts concerning the three groups, shows that the representation from the various classes is roughly the same for the three groups, there being a slightly larger proportion of freshmen from the Northern and North-in-South groups. (The representation from the junior and senior classes was so small in all three groups that these years were combined.) It will be observed that for the Northern group the upperclassmen score was slightly higher than the freshmen, the difference not being a significant one. For the Southern group the scores of the three classes were about the same, but for the North-in-South group there was a consistent drop from year to year. The means for the first two groups are surprising, for they indicate no significant rise in favorableness with increased schooling, but the differences between

TABLE 3

RELATION BETWEEN YEAR IN COLLEGE AND MEAN ATTITUDE SCORE FOR THE THREE POPULATIONS

Year in college	Northern		North-in-South		Southern	
	N	M	N	M	N	M
Freshmen	42	6.4	59	6.2	57	5.0
Sophomores	23	6.7	29	5.8	56	4.9
Juniors and Seniors	31	6.8	25	5.2	44	5.0

the various classes in the North-in-South group are even more interesting. Although the data for calculating the probable errors of these differences are not presented in Table 3, we have calculated it for the difference between the Freshmen and Juniors-Seniors for the North-in-South group. The difference, 1.0, is approximately seven times the probable error; that is, these students come South as freshmen with an attitude which is practically the same as that of the Ohio students (it will be remembered that the North-in-South group had a very large percentage of males and the Ohio males scored an average of 6.3) but as time goes on their attitude approaches that of the typical Southern student, until in the Junior and Senior years there is not a significant difference between the two groups. This, incidentally, is the explanation of the relatively greater spread noted in Table 1 for the North-in-South group.

As to whether this change in attitude comes as a result of contact with the Negro or from contact with the Southern student we have no evidence. It probably is to some extent, anyway, simply a case of "susceptibility to majority influence." On the other hand, it possibly represents in part an adoption of the Southern *mores*, an absorption of the Southern attitude. At any rate it lends but scant support to Diggins' thesis that "contact insures friendliness" in the case of Negro-white relations.[6]

ATTITUDE AND SIZE OF HOME COMMUNITY

The communities from which the students came were classified according to size as follows: farm or village (less than five thousand population), small town (5,000 to 25,000 population), small city (25,000 to 250,000), and large city (above 250,000). The numbers coming from each size community and the mean attitude score made are given for each of the three populations in Table 4.

It will be seen that the larger percentage of the Southern students comes from communities of less than 25,000 population, the Northern students come chiefly from larger towns and smaller cities, while the North-in-South students mostly come from large cities. Examination of the mean score for the various groups shows that there is no consistent relationship between size of community and attitude toward the Negro. In fact, when the small numbers are considered, the groups are surprisingly consistent. In no case is there a statistically significant difference, and there is no overlapping of means. That is, no North-in-South group made an average score as high as the lowest Northern group and no

[6] E. Diggins, "A Statistical Study of National Prejudices," M.A. thesis, Columbia University, summarized by G. and L. Murphy, *op. cit.*, pp. 635–638.

TABLE 4

RELATION BETWEEN SIZE OF COMMUNITY FROM WHICH STUDENTS CAME AND MEAN ATTITUDE SCORE FOR THE THREE POPULATIONS

Size of community	Northern		North-in-South		Southern	
	N	M	N	M	N	M
Less than 5,000	16	7.0	8	5.8	35	5.0
5,000 to 25,000	27	6.3	18	5.9	65	5.2
25,000 to 250,000	37	6.5	38	5.8	31	5.2
250,000 plus	16	7.1	51	5.9	27	5.1

Southern group made an average score as high as the lowest North-in-South group.

PARENTAL OCCUPATION AND ATTITUDE

It is very difficult to classify occupations along any sort of quantitative scale so that they indicate increasing cultural and social levels,[7] but we have made three such attempts and because of the consistency of the findings the conclusion seems to be fairly dependable. First, the occupations reported were classified by means of a modified Taussig scale, which one of the writers had prepared in connection with an attempt to measure Socio-Economic status,[8] as follows:

Group I. Professional men, proprietors of large businesses, and higher executives.

Group II. Commercial service, clerical service, large land owners, managerial service, and business proprietors.

Group III. Artisan proprietors, petty officials, skilled laborers with some managerial responsibility, small shop owners and business proprietors.

Group IV. Skilled laborers who work for someone else, building trades, transportation trades, manufacturing trades involving skilled labor, personal service. Small shop owners doing their own work.

Group V. Unskilled laborers, common laborers, helpers, "hands," peddlers, varied employment, venders, unemployed (unless it represents the leisured class or retired).

The means for the various groups were then calculated and are presented in Table 5. Group V was so poorly represented in all three populations that it is combined with Group IV.

It will be noticed that the occupational groups represented are more or less the same in the three populations. More Southern students come from Group I and more Northern students come from Groups IV–V; otherwise, there are no appreciable differences. In other words, the indications are that the students come from approximately the same economic and cultural levels, which at once suggests that the difference in attitude between the geographical groups is not due to differences in the social levels from

[7] This is particularly true when the only information available is the name of the occupation. If the writers were repeating the study, they would certainly get more complete information concerning the nature of the occupation.

[8] V. M. Sims, *The Measurement of Socio-economic Status* (Bloomington, Ill.: Public School Publishing Co., 1928), p. 38.

TABLE 5

RELATION BETWEEN OCCUPATIONAL STATUS AND MEAN ATTITUDE SCORE FOR THREE POPULATIONS

Occupational class	Northern		North-in-South		Southern	
	N	M	N	M	N	M
I	9	6.6	10	5.7	34	5.2
II	21	6.5	23	6.1	31	4.9
III	24	6.5	45	5.8	55	5.0
IV & V	33	6.8	24	6.3	22	5.0

which the students come. An examination of the mean attitude scores for the various occupational groups leads to the same conclusion. The differences in every case are slight and no consistent trends are observed. The most favorable scores among the Southern students were made by those students having parents who are members of the professions, but in the North-in-South group the sons and daughters of professional men made the lowest score and in the Northern group the "labor" group made the highest score.

The smallest of these differences may be due to the crudity of the method of occupational classification used. Another attempt to answer the same question was made by scoring the reported parental occupations by means of the Barr Scale of Occupational Status [9] and then correlating occupational status and attitude for the three groups. The correlation for the Northern group was $.14 \pm .06$, for the North-in-South group it was $-.02 \pm .07$, and for the Southern group $-.13 \pm .05$. The probable errors of the coefficients are so great that the coefficients can only be interpreted as indicating no relation between attitude and occupational level; although it is interesting, if perhaps accidental, that again the Northern group does show some positive relationship, which is what one would expect if there be a positive relation between attitude and intelligence.

The final attack was made by selecting out those occupations which appeared relatively often and were definitely classifiable, and comparing the means of these groups. The occupational groups represented by ten or more cases in two or more of the three populations were: professional men (doctors, lawyers, and ministers), merchants, salesmen, farmers, and skilled laborers. Table 6 presents the number of cases found and the mean scores made by these occupational classes for the three geographical groups.

Again the indications are that there is no relation between occupation and attitude. The differences between the means are all slight, and where there are differences they are contrary to what one would expect if there were any relationship. In the Northern group the sons and daughters of farmers made the highest score, and in the Southern group the merchant class made the highest score, while in the North-in-South group there was only .1 point difference between the highest and lowest mean score. The numbers are too small to be statistically meaningful, anyway; but the summation of evidence from the three analyses is rather convincing, and it does not support the common contention that eco-

[9] L. M. Terman, *Genetic Studies of Genius* (vol. 1; Stanford University: Stanford University Press, 1925), pp. 542–545.

TABLE 6

MEAN ATTITUDE SCORES OF SELECTED OCCUPATIONAL GROUPS FOR THE THREE POPULATIONS

Occupations	Northern		North-in-South		Southern	
	N	M	N	M	N	M
Professional men	11	6.7	10	5.9	33	5.0
Merchants	—	—	16	5.8	18	5.2
Salesmen	11 [a]	6.5	12	5.8	15	4.9
Farmers	13	7.1	—	—	13	5.1
Skilled laborers	19	6.4	24	5.9	14	5.0

[a] Merchants and Salesmen.

nomic friction leads to the racial antagonisms. The explanation may be that our students represent a highly selected occupational group, hence economic competition with the Negro may be of no consequence or actually nonexistent.

SUMMARY

If we confine ourselves to the groups studied we may summarize as follows:

1. There are significant and true differences in the attitude toward the Negro of the three groups, students from Northern homes studying in the North being most favorable, students from Northern homes studying in the South being not so favorable, and students from Southern homes studying in the South being least favorable.

2. There is a slight positive relation between intelligence and attitude in all three groups, this relationship seemingly being highest for the Northern students studying in the North.

3. There is a consistent sex difference in the three groups, the women being slightly more favorable than men.

4. In the Northern group and in the Southern group upper-classmen are equally favorable or slightly more favorable in attitude than are freshmen, but among the Northern students studying in the South the upperclassmen are definitely less favorable than are the freshmen who have just recently come South.

5. No relation between size of community and attitude was found in any geographical group.

6. But slight if any relationship was found between occupation of the father and attitude.

Recognizing the limited nature of the study the writers hesitate to draw any general conclusions concerning the nature of differences in the attitude of college students toward the Negro. However, the study does suggest that Northern college students are on the average definitely more favorable toward the Negro than are Southern college students; but there are great individual differences within the groups and consequently overlapping between them. As to the causes of these differences our conclusions are only negative. They do not seem to be satisfactorily accounted for by intelligence, sex, degree of maturity, size of home community, or occupational level. Finally, when Northern students are transplanted into the Southern environment their attitude seems to change, gradually becoming more nearly that of the Southern students. Whether this change is the result of contact with the Negro or with the general Southern atmosphere cannot be said.

VIII

Role and Status

1.

CONCEPTS OF ROLE AND STATUS

By Ralph Linton

Societies rather than individuals are the functional units in our species' struggle for existence and it is societies as wholes which are the bearers and perpetuators of cultures. No one individual is ever familiar with the total culture of his society, still less required to express all its manifold patterns in his overt behavior. However, the participation of any given individual in the culture of his society is not a matter of chance. It is determined primarily, and almost completely as far as the overt culture is concerned, by his place in the society and by the training which he has received in anticipation of his occupying this place. It follows that the behavior of the individual must be studied not simply in relation to the total culture of his society but also in relation to the particular cultural demands which his society makes upon him because of his place in it. Thus all societies expect different behavior from men and from women, and one cannot understand the behavior of any particular man or woman without knowing what those expectations are.

The structure of even the simplest primary society, such as a primitive village, is by no means simple or homogeneous. The individuals who compose such a society are classified and organized in several different ways simultaneously. Each of these systems has its own functions as regards relating the individual to culture, and he occupies a place within each of them. Thus every member of the society has a place in the age-sex system and also in the prestige series. He has a place in the system of specialized occupations, either as a specialist or as a member of the unassigned residue which, in our own society, is designated by such vague terms as *unskilled laborer* or *housewife*. Lastly, he always belongs to some family unit and to one or more association groups. As long as he has a single living relative within the society, he has position in the family system; and even if all his kindred have been swept away, he can re-enter the system by the road of adoption or marriage. As regards membership in the system based on association, any member of a primary society who is not psychotic can hardly fail to be included in friendship units and work groups. He may be debarred from belonging to clubs or other of the more formal association groupings, but even so he occupies a very definite place in the system of which such groups are a part. He is one of the "outsiders," and it is the presence of this group which provides the "members" with most of their emotional satisfaction. It is inconceivable that a secret society could exist without a large audience of nonmembers to envy the members and speculate about the secrets.

In past attempts to clarify the relation

From Ralph Linton, *The Cultural Background of Personality* (New York: D. Appleton-Century Co., Inc., 1945). Reprinted by permission of the author and the publisher.

of the individual to these multiple social systems, two terms have proved so useful that it seems justifiable to introduce them here. We have tried to make it clear that the systems persist while the individuals who occupy places within them may come and go. The place in a particular system which a certain individual occupies at a particular time will be referred to as his *status* with respect to that system. The term *position* has been used by some other students of social structure in much the same sense, but without clear recognition of the time factor or of the existence of simultaneous systems of organization within the society. *Status* has long been used with reference to the position of an individual in the prestige system of his society. In the present usage this is extended to apply to his position in each of the other systems. The second term, *role*, will be used to designate the sum total of the culture patterns associated with a particular status. It thus includes the attitudes, values, and behavior ascribed by the society to any and all persons occupying this status. It can even be extended to include the legitimate expectations of such persons with respect to the behavior toward them of persons in other statuses within the same system. Every status is linked with a particular role, but the two things are by no means the same from the point of view of the individual. His statuses are ascribed to him on the basis of his age and sex, his birth or marriage into a particular family unit, and so forth. His roles are learned on the basis of his statuses, either current or anticipated. In so far as it represents overt behavior, a role is the dynamic aspect of a status: what the individual has to do in order to validate his occupation of the status.

A particular status within a social system can be occupied, and its associated role known and exercised, by a number of individuals simultaneously. In fact this is the normal condition. Thus every society ordinarily includes several persons who occupy the status of adult male and adhere to the adult male role. It similarly includes a number of persons who occupy the status of father in the organizations of the particular family groups to which they belong. Conversely, the same individual can and does occupy simultaneously a series of statuses each of which derives from one of the systems of organizations in which he participates. He not only occupies these statuses, but he also knows the roles pertaining to them. However, he can never exercise all these roles simultaneously. Such roles are a constant element in his participation in the covert culture of his society, but function intermittently with respect to his participation in its overt culture. In other words, although he occupies statuses and knows roles at all times, he operates sometimes in terms of one status and its role, and sometimes in those of another. The status in terms of which an individual is operating is his *active status* at that particular point in time. His other statuses are, for the time being, his *latent statuses*. The roles associated with such latent statuses are temporarily held in abeyance, but they are integral parts of the individual's culture equipment.

This formulation can be made clearer by an example. Let us suppose that a man spends the day working as clerk in a store. While he is behind the counter, his active status is that of a clerk, established by his position in our society's system of specialized occupations. The role associated with this status provides him with patterns for his relations with customers. These patterns will be well known both to him and to the customers and will enable them to transact business with a minimum of delay or misunderstanding. When he retires to the rest room for a smoke and meets other employees there, his clerk status becomes latent and he assumes another active status based upon his position in the

association group composed of the store's employees as a whole. In this status his relations with other employees will be governed by a different set of culture patterns from those employed in his relations with customers. Moreover, since he probably knows most of the other employees, his exercise of these culture patterns will be modified by his personal likes and dislikes of certain individuals and by considerations of their and his own relative positions in the prestige series of the store association's members. When closing time comes he lays aside both his clerk- and store-association statuses and, while on the way home, operates simply in terms of his status with respect to the society's age-sex system. Thus if he is a young man he will at least feel that he ought to get up and give his seat to a lady, while if he is an old one he will be quite comfortable about keeping it. As soon as he arrives at his house, a new set of statuses will be activated. These statuses derive from the kinship ties which relate him to various members of the family group. In pursuance of the roles associated with these family statuses he will try to be cordial to his mother-in-law, affectionate to his wife, and a stern disciplinarian to Junior, whose report card marks a new low. If it happens to be a lodge night, all his familial statuses will become latent at about eight o'clock. As soon as he enters the lodge room and puts on his uniform as Grand Imperial Lizard in the Ancient Order of Dinosaurs he assumes a new status, one which has been latent since the last meeting, and performs in terms of its role until it is time for him to take off his uniform and go home.

The fact that the individual's various statuses are activated at different times prevents a head-on collision between the roles associated with them. At most, the overt behavior which is part of the role connected with one status may negate the results of the overt behavior which is part of another role. The behaviors themselves will not conflict because of the time differential. Moreover, the roles associated with the statuses within a single system are usually fairly well adjusted to one another and produce no conflicts as long as the individual is operating within this system. This also holds for statuses within different systems whenever these statuses are of such a sort that they normally converge upon the same individuals. Thus in any society the roles of adult male, of father, of craft specialist, of friend, and so on will normally be adjusted to one another in spite of the different systems from which they derive. Such adjustments, of course, are not the result of conscious planning. They are developed through the experience of individuals who have occupied such series of statuses simultaneously and have gradually eliminated most of the conflicts through a process of trial and error. Thus if patterns of formal friendship are borrowed from some other society, such patterns will soon be modified in such ways that there will be no conflict between them and the patterns already established by the local system of family organization.

In the rare cases in which, through some accident, statuses whose roles are fundamentally incompatible converge upon the same individual, we have the material of high tragedy. While most societies feel little sympathy for the individual who is trying to escape the performance of certain of his roles, all can sympathize with the dilemma of a person who must choose between statuses and roles which are equally valid. Such dilemmas are a favorite theme in the literature of the more sophisticated or introspective societies. The tragedy of the House of Oedipus and the closing episodes of the Niebelungenlied are classical examples, while at the level of simpler folklore we have the Scottish story of the man who finds himself host to his brother's murderer. In each of

these cases the individual upon whom the incompatible roles converge meets the problem by the familiar pattern of operating in terms of different statuses at different times, even though recognizing that the associated roles will, in their performance, negate each other's performance. Thus in the Scottish story the brother, as host, conducts the murderer safely beyond clan territory then, as brother to the victim, engages him in combat to the death.

Such conflicts rarely arise in primary societies or even within larger social groupings which have persisted for some time and developed well integrated cultures. However, they may become fairly frequent under the conditions existing in our current society. Under the necessity of reorganizing our social structure to meet the demands of a new technology and of a spatial mobility unparalleled in human history, our inherited system of statuses and roles is breaking down; while a new system, compatible with the actual conditions of modern life, has not yet emerged. The individual thus finds himself frequently confronted by situations in which he is uncertain both of his own statuses and roles and those of others. He is not only compelled to make choices but also can feel no certainty that he has chosen correctly and that the reciprocal behavior of others will be that which he anticipates on the basis of the statuses which he has assumed that they occupy. This results in numerous disappointments and frustrations.

2.

THE ADJUSTMENT OF THE INDIVIDUAL TO HIS AGE AND SEX ROLES *By Leonard S. Cottrell, Jr.*

In discussing the adjustment of the individual to his age and sex roles, I shall be using the term role to refer to an internally consistent series of conditioned responses by one member of a social situation which represents the stimulus pattern for a similarly internally consistent series of conditioned responses of the other(s) in that situation. Dealing with human behavior in terms of roles, therefore, requires that any item of behavior must always be placed in some specified self-other context.

By way of further clarification it is necessary to call attention to the distinction between the use of the term role to refer to a modal system of responses which constitutes the culturally expected behavior and the particular system of responses with which a specific individual operates. Thus, when we speak of the individual's ability to perform in his sex role, we refer to the relation which his behavior, in situations in which sex classification is relevant, bears to some modal pattern expected in a given cultural or subcultural group. On the other hand, even though he may deviate widely and may properly be said not to be acting in the proper role, his own particular self-other pattern is his role also. If a middle class husband is indifferent and irresponsible and expects his wife to support and stabilize the family, he is not manifesting the particular complex of behavior we expect from the role of the husband, but he nevertheless has a particular role in his marriage. We may refer then to cultural roles and unique roles. The distinction is most obvious when

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we have a person equipped with both a cultural and a deviant pattern. The present discussion is directed to the consideration of the problem of adjustment to the cultural role or roles assigned to a given age and sex classification.

Adjustment is usually indicated negatively as the degree of maladjustment. We may assume that the amount of tension, anxiety and frustration generated by the attempt to discover and play a given role is an index of the individual's adjustment to such a role.

It is not the purpose of this paper to discuss particular problems which individuals encounter in adjusting to culturally defined roles required of them because of membership in given age, sex, class, caste and other social categories. The illuminating investigations of Benedict,[1] Blos,[2] Davis,[3] Dollard,[4] Folsom,[5] Linton,[6] Mead,[7] Warner,[8] Zachry[9] and others have made this unnecessary.

Rather, I shall try to summarize and integrate the findings and insights of these workers into a series of propositions covering what appear to be the chief determinants of the degree of adjustment an individual is likely to realize as he functions in a given social role in a given culture.

A consideration of adjustment to any social category role centers around two closely associated problems:

(1) The adjustment to a role called for by the social category (in the present discussion, age-sex classes) to which the individual presently belongs.

(2) The adjustment to the shifts in role made necessary by the progression from one category to another.

The following propositions are pointed to these two problems. While they deal specifically with age-sex roles, they are applicable to any social role.

No claim is made that the statements which follow are conclusively established. Actually the research data and informal observations supporting them are very fragmentary. The propositions are in the nature of hypotheses for which the available evidence offers some support but which require crucial testing by systematic research.

Propositions

I. The degree of adjustment to roles which a society assigns to its age-sex categories varies directly with the clarity with which such roles are defined.

A. The degree of clarity is determined by the proportion of the social situations in which the individual is called on to act for which there are explicit definitions of the reciprocal behavior expected.

B. Clarity of definition of role is reduced by:

(1) Discrepancies between what is given verbally and what is demonstrated in practice.

[1] Ruth Benedict, "Continuities and Discontinuities in Cultural Conditioning," *Psychiatry*, 1938, 1:161–167.

[2] Peter Blos, *The Adolescent Personality* (New York: D. Appleton-Century Co., 1941).

[3] Allison Davis, "American Status Systems and the Socialization of the Child," *Am. Soc. Rev.*, 1941, VI, 345–356.

[4] Allison Davis and John Dollard, *Children of Bondage* (Washington: American Council on Education, 1940).

[5] G. Lawton and others, "Symposium on Old Age and Aging," *Am. J. Orthopsychiatry*, 1940, X, 27–88. See especially the paper by J. K. Folsom and the discussion of it by Lawrence K. Frank.

[6] Ralph Linton, "A Neglected Aspect of Social Organization," *Am. Soc. Rev.*, 1940, XLV, 870–886.

[7] Margaret Mead, *Sex and Temperament in Three Primitive Societies* (New York: Wm. Morrow & Co., 1935).

[8] W. Lloyd Warner and Paul S. Lunt, *The Social Life of a Modern Community* (New Haven: Yale University Press, 1941).

[9] Caroline B. Zachry, *Emotion and Conduct in Adolescence* (New York: D. Appleton-Century Co., 1940).

(2) Contacts among members of sub-culture groups which have different roles for the same age-sex categories.

(3) Inconsistency in the response and expectations exhibited to the individual by members of his social world.

II. The degree of adjustment to specified age-sex roles varies directly with the consistency with which others in the individual's life situations exhibit to him the response called for by his role.

III. When a society assigns or permits more than one role to a given age-sex category, the degree of adjustment to the roles varies directly with the compatibility of the roles.

IV. When incompatible roles belong to a given age-sex category, the degree of adjustment varies directly with the extent to which means exist for minimizing the overlap of situations calling for incompatible roles.

V. The degree of adjustment varies indirectly with the discrepancy between the abilities of the individual and those required in the roles of a given age-sex category.

VI. The degree of adjustment to the roles of specified age-sex categories varies directly with the extent to which the role permits the individual to realize the dominant goals set by his sub-cultural group.

VII. When the role represents an excess of deprivation or frustration of dominant goal satisfactions adjustment varies directly with:

A. The extent to which the frustrating role is defined as a path to another role which promises the desired gratifications, and/or

B. The accessibility of substitute gratifications.

The remaining propositions have to do with adjustment to transitions from one role to another.

VIII. The degree of adjustment to a future role varies directly with the degree of clarity with which the future role is defined.

IX. The degree of adjustment to a future role varies directly with the amount of opportunity for:

A. Emotionally intimate contact which allows identification with persons functioning in the role.

B. Imaginal or incipient rehearsal in the future role, and

C. Practice in the role through play or other similar activity.

X. The degree of adjustment to a future role varies directly with the degree of importance attached to and the definiteness of the transitional procedures used by the society in designating the change in role.

XI. The degree of adjustment to a future role varies directly with the completeness of the shift in the responses and expectations exhibited by the society to the individual in his new role.

XII. Adjustment to more mature roles is aided rather than handicapped by occasional sanctioned regressions to less demanding roles.

It is my opinion that if these propositions were put in the form of questions about any given cultural role, the answers would fairly precisely indicate the degree of adjustment which individuals are likely to make to such a role. The answers would also indicate the chief sources of the maladjustment. What is more, if the propositions were applied as questions to the series of social roles comprising a given social system, the answers would indicate the points in the social structure with the greatest hazards to social adjustment and the probable sources of such hazards.

It is also my opinion that the propositions provide a basis for asking questions which are capable of answers and, for the most part, reasonably precise if not actually quantitative answers. Obviously the propositions will have to be reduced to a series of properly weighted items if the implied relations are to be stated quantitatively.

Each of the propositions implies a simple linear relationship. However, it is quite probable that there are limits beyond which a linear relation does not exist. Furthermore, the factors said to affect adjustment operate simultaneously in a configuration and thus modify one another in their manifest effects.

A cursory application of the propositions to a few specific social categories will demonstrate their utility for analyz-

ing the phenomena of social adjustment. For example, compare the results of such applications to the adolescent, the young adult, the older adult, and the aged; or to the various prestige class ranks; or to categories such as those of the settled Yankee farmer and the middle class urban woman. If time permitted a detailed examination of such test applications we could probably demonstrate that this frame of reference offers a fruitful approach to the whole question of social adjustment.

Any discussion of adjustment not only involves problems of descriptive analysis and interpretation but inevitably leads to questions of value. Indeed, the implicit if not explicit motivation for each such descriptive analysis is the search for more desirable and rewarding social arrangements, as Mead's excellent discussion of sex and temperament [10] so amply demonstrates. The present propositions are not designed to deal with questions of relative desirability. However, in so far as they aid in clarifying what is, they will serve to point to the instrumentalities for achieving what ought to be.

3.

SEX ROLES IN POLYGYNOUS MORMON FAMILIES

By Kimball Young

In 1843, when Joseph Smith, the Mormon prophet, announced to his closest associates the "revelation on the eternity of the marriage covenant, including the plurality of wives," he was met by a variety of reactions. The "Principle" of polygynous "celestial marriage" ran counter to some of the deepest values of the Latter-day Saints, and it was only to be expected that many would respond negatively to such a revolutionary idea. Yet, within a few years, the pattern was accepted by nearly all the Mormons and practiced by a considerable fraction of them, but especially by those who held positions of social dominance.

This striking intrusion of a deviant sexual and familial pattern into American life, which met with tremendous resistance from the outside, affords an excellent opportunity to examine a number of points bearing on social-cultural change and on the personality manifestations that are the psychological counterparts or elements in this change. The aim of this study, in fact, is to describe and interpret certain attitudes and habits of individuals living in selected polygynous Mormon families. Such an investigation should throw light on certain interrelations of culture and personality.

Materials and Methods

The approach may be designated broadly as that of the life history or individual case study. It is frankly qualitative rather than quantitative, and the major concern is with the processes of interaction of persons as these influence the ideas, attitudes, habits, and values involved in the social role and status of given individuals. It is the author's conviction that such materials have value for the human sciences, even though

From "Variations in Personality Manifestations in Mormon Polygynous Families" in Quinn McNemar and Maud A. Sherrill (eds.), *Studies in Personality Contributed in Honor of Lewis M. Terman* (New York: McGraw-Hill Book Co., 1942). Reprinted by permission of the author and the publisher.

[10] Margaret Mead, *op. cit.*, pp. xiii-xxii and 279–322.

they are not in a form amenable to quantification. Our interpretation must be made in terms of the interplay of persons within given social configurations, and such interpretations are made possible, in part, by concepts developed from case-study methods as they have been worked out in social psychology, clinical psychology, cultural anthropology, and dynamic psychiatry.

The basic data for this study consist of approximately 125 records of men and their families who lived at one time or another under Mormon polygyny. The material ranges from extensive interview notes and rather complete autobiographical statements and diaries to sketchy and incomplete records of interviews, brief biographies, letters, and other fragmentary sources.[1] No formal questionnaire was employed, but the field workers followed a certain agreed-upon plan as to what pertinent data were to be collected whenever possible. Most of the autobiographical matter and the letters and diaries were, of course, written years ago, the most valuable of the documents during the very time when the practice was in full bloom. Although not always affording precise information, these data often proved most important in providing background material and revealing the "spirit" of this novel enterprise.

With respect to the nature and function of personality, the writer follows essentially the standpoint that he has indicated elsewhere.[2] With reference to our particular data, we shall discuss certain motivations of individuals as these influence their role and status in the Mormon family and in the Mormon community. In turn, these matters will be related to ego security or insecurity, degree of self-esteem, and the manifestations of aggressive or other behavior in the face of frustrations and the struggle for prestige and acceptable roles. In this analysis, attention will be given to the social-cultural configurations in which individual action takes place. Without this larger orientation, the individual's motives and satisfactions, or lack of them, mean nothing.

Role and Status of the Wives

One of the foremost difficulties that confronted a wife in a polygynous family arose out of the breakdown of certain of the basic features of monogamy. In the traditional American marriage, there had been developed a certain linkage of patriarchal control with romantic love. This implied relatively free choice of mates on grounds of mutual attraction, predicated in part on sexual appeal; it involved an idea of constancy, fidelity, complete attention of one spouse to the other, and emotional security. These, in turn, implied certain roles and statuses. Among the roles was the duty or responsibility to serve the husband, which entailed certain corresponding privileges within this framework of obligation. Thus, in the case of the woman, status

[1] In the collection of the data, the author was assisted by J. Edward Hulett, Jr., and Faye Ollerton. He wishes also to thank the Social Science Research Council and the graduate school of the University of Wisconsin for grants-in-aid during the years 1935–1939, which provided funds for some of the fieldwork involved.

In addition to the specific data compiled by the writer and his field assistants, all three workers made daily notes of their conversations and contacts with individuals who were living or had lived under the plural-marriage system. The participant-observer technique was important, and we have in this study an excellent illustration of the role of the interviewer and observer as an instrument not only of collection but of meaningful interpretation of the data. This is not the occasion to defend this standpoint and method, which obviously lead over from strict objectivity toward the art of handling individuals and of using inferences not always supported by completely demonstrable and self-evident data. [See Kimball Young, *Personality and Problems of Adjustment* (New York: F. S. Crofts & Co. 1940), pp. 253–258; and G. W. Allport, *Personality: A Psychological Interpretation* (New York: Henry Holt & Co., 1937).]

[2] See Young, *op. cit.*, especially chs. 4, 7, 9, and 10.

was assured through the performance of her major adult functions in her capacity of wife, mother, helpmate, and companion. The husband's role was not only that of fathering his children, but of being provider and disciplinarian. He furnished the basic economic security and authority. The sanctions for these functions rested not only on the mores but on the law. The legitimacy of the sexual expression and of the children, as members of family and community, was taken for granted. Moreover, there was a cultural expectancy or approval of such emotional-aggressive expressions as jealousy and envy on the part of the wife if and when her traditional role and status were threatened. These sentiments represented potential or anticipatory reactions toward any efforts to dislodge her from her security, possessive rights and duties, and other customary appurtenances.

This, at least, is the idealized picture of interspouse relations in monogamy. Moreover, the powerful sanctions of the Christian church, with few deviant instances, had for hundreds of years been deeply imbedded in our cultural conditioning. Approved marital relations of any other pattern were hard to imagine.

Within this broader cultural setting of Mormonism were other concepts and practices that must be noted if we would understand fully the meaning of plural marriage for the individuals involved. In the family life, the Mormons accepted and extended the patriarchal system. On the religious side, the males were accorded the rights and duties of the divinely established priesthood—the lower, or Aaronic, and the higher, or Melchisedek, and women could attain salvation by becoming members of the church—through repentance, baptism, and the "laying on of hands for the gift of the Holy Ghost." For them, however, the full glory in this life and in the hereafter could be obtained only through certain sacred rituals performed "by those in authority" involving marriage for "time and eternity." These marriages linked the wife to the husband forever and made it possible for her to share in his status during this life and in the next. But such status was not complete or satisfactory to God unless the woman bore many children not only "to people and replenish the earth" but also to afford the waiting souls in heaven an opportunity to take on the flesh and go through the "probation" of living on the earth.[3]

Mormon polygyny was superimposed on this theological pattern. It was first enunciated in 1843 by Joseph Smith to his closest followers and members of the hierarchy, whence it spread but slowly among the rank and file of the church. "Gentile" or non-Mormon opposition to the practice, however, was a factor in driving the Mormons out of Illinois, and it was not until 1853, in the distant reaches of the Great Basin, that the "Principle" was finally publicly acknowledged. The new doctrine became integrated into the older theology. Higher glory for the man was obtainable through plural wifehood and the production of many children. Polygynous women were promised greater rewards than their monogamous sisters.

On the other hand, this novel pattern involved certain alterations in the older forms of matrimony and family life. Theoretically, the new pattern necessitated the disappearance or decline of some aspects of monogamous romantic love as a basis for wedlock. Ideally, at least, there was set up a system of equal status among two or more wives, which was applicable to emotional as well as to economic needs. But the new scheme gave no recognition to jealousy and envy —long-accepted bulwarks of monogamy.

[3] It is impossible to elaborate the whole Mormon eschatology, but it is important to note the stress on large families, on many wives, and, on a projection of these concepts into the future life, when women would go on bearing not mundane but spiritual beings, who, in turn, would be born in the flesh.

Monogamous marriage, supported as it was, of course, by outside legal sanctions, remained for the Mormons a religious sacrament. On the other hand, polygyny meant a complete abandonment of the secular, i.e., legal, sanctions of marriage, child status, and property rights. These were replaced by sacred or ecclesiastical sanctions. This loss of support from legalistic as well as traditional Christian grounds doubtless influenced the adoption of plural marriage by particular individuals. It must never be forgotten that the Mormons were a cultural island within the larger world of American society. Yet all the usual legal sanctions regarding property, contract, police power, community controls, as well as those relating more directly to marriage and childbearing and child rearing were, in large part, carried over into the Mormon pattern, since, as a cultural island, Mormondom was never fully isolated from the gentile world around it.[4] The whole course of polygyny was influenced not only by the historical carry-over from gentile America but by continuing contact between the Mormons and non-Mormons.

With this brief background on the relation of plural wifehood to Mormon theology, let us examine the manner in which the new pattern worked out in the lives of given individuals.

As pointed out, in Mormondom as elsewhere, we had a combination of monogamy and polygyny. There was always the monogamous pattern as a frame of reference, competing, as it were, with the novel one. Actually, too, the wives for the most part began with monogamy in which the romantic pattern—at least as an ideal—must have had its effects.[5] This meant that the interspouse adjustment usually began in the monogamous tradition and custom, even though, as sometimes happened, the spouses recognized that subsequently the husband might add other wives to his domestic ménage.

In theory, at least, when this day arrived, the first wife was supposed to give her consent to the plural marriage. (So, too, certain higher authorities in the church were to approve the same.) There are instances in which the first wife overtly encouraged the plural marriage. In many cases, however, she was informed of the matter only after complete arrangements for the additional wife had been made. In others, she was informed only after the *fait accompli;* sometimes months or years elapsed before she knew that her husband had acquired another wife.[6]

Even though the church dogma insisted on the theory of equality, in actual practice it was difficult to maintain. The first wife often attempted to keep her traditional, monogamously oriented role and status, and there usually arose a struggle among the wives for ascendancy. In some instances, there was a form of subordination of the plural wives to the first one. Such matters as the older romantic hold of the first wife, her long-accustomed habit of domination, her property rights (after all, only she was the legal wife in the eyes of the law), and her awareness of having legitimate children were important items psychologically in supporting her claims. Here we witness a good illustration of the competition of the old and new cultural pat-

[4] The impact of the larger America on Mormon polygyny is ably discussed with reference to public opinion by Paul W. Tappan, Mormon-gentile conflict: a study of the influences of public opinion on in-group versus out-group interactions with special reference to polygamy. Unpublished doctor's thesis, Wisconsin, 1939.

[5] There were some instances in which a man's initial marriage venture was marked by his marrying two wives on the same day. I have, altogether, a half dozen instances of this in my field notes. But on the whole, this procedure was unusual.

[6] These latter instances usually had some specific justification, such as the avoidance of publicity lest the federal officials arrest the husband and/or the plural wife.

terns. In spite of preaching and theology, the first wife had the whole weight of monogamous tradition on her side. Moreover, in spite of acceptance of the "Principle" by the plural wives, most of them had been conditioned to the same monogamous frame of reference, and, in spite of their conscious protests to the contrary, they doubtless carried with them the emotional conviction of the essential moral rightness of monogamy and all that it implied.[7] Some of these matters will become more obvious if we now examine a series of instances that reveal the competition for dominance and the implications of this struggle on the sense of security or insecurity.

In many cases, the legal status of the first wife, the fact that she lived in a better house than other wives, was older and more experienced, often combined to lend further support to her dominance. Though by no means a universal practice, the husband frequently brought visiting church dignitaries home to dinner or for lodging at the first wife's home. Then, too, during the "Underground," the need for secrecy as to plural marriage was increased, and this itself provided a situation favorable to the retention of first place by the legal wife. On the other hand, the "raids" enhanced the insecurity of the plural wives involved. Often these women put up with great physical discomfort and developed a keen sense of inferiority. Others proudly assumed their role as evidence that they were performing God's assignment in thus being "persecuted for the Gospel's sake."

In some instances, the ascendancy-subordination relationship was more obviously accepted by the plural wife, although not without some emotional discomfort. The case of the William W. family is in point.

W.'s first wife Mary, whom he married in 1860, at the age of 29, was 4 years his senior. She was a strong, competent woman of Swiss peasant background. Six children were born during the next 12 years. During this time, W. accumulated considerable property and became locally prominent as a church leader. In 1872, he married a 20-year-old girl, Florence D. His first wife thoroughly agreed to this and always rationalized polygyny in terms of "sacrifice" for the "Principle."

Although the husband remained the patriarch of both families within the general framework of harmony, a definite superiority-dependency pattern developed. In the words of one of the second wife's daughters, it was a sort of mother-daughter relationship. The first wife set a pace in work and management that the second could not match. As a son of Florence put it, "Father obviously could do nothing about this situation. Auntie was pretty much in charge, and mother wouldn't complain, so father perhaps hardly suspected that anything was wrong." In fact, Florence in time tended to lose whatever initiative she had possessed and more and more assumed a passive role, one that, however, left her decidedly unhappy. As the son remarked, "She had no status in public. If there was ever a question of father's appearing in public with a wife, he appeared with his first wife, and Florence came with her children unattended." The informant commented that as a lad he could "never understand why he always went with his mother while Aunt Mary went with father."

In this case, the overt accommodation to superior-inferior status was so successfully achieved that none of the children probed beneath the external evidence of compatibility until they were quite mature.

In the absence of strong ambitions or

[7] This would seem to be particularly true of those who entered into the system from monogamous family backgrounds. A small fraction of the author's family records reveals instances of wives—and husbands, too—who were brought up in polygynous families. But the number is too small to make any judgment as to whether they adjusted more adequately to polygyny than those from monogamous households. Moreover, it must not be forgotten that the majoirty of Mormon marriages were monogamous, so that this always remained the dominant pattern, though not officially the most desirable.

aggressive desires for high status, it was possible in some instances for the various wives to work out a situation in which none of them was accorded persistent superiority. In some cases, this became almost a sister-sister relationship, in which, under the religious faith in the "Principle" and a fair degree of equalitarian treatment from the husband, there was general harmony. In such families, moreover, there was often a distinctive division of labor—each wife undertaking certain definite functions. Also, it is the author's impression from the data that, in such instances, when the families were not in too close personal contact, these relations worked out more satisfactorily, e.g., in those situations where one wife lived on the farmstead outside the village and the other wife resided in the village itself.

Thus, it is clear that in many families the first wife maintained the highest position, abetted as she was by legality of her position and that of her children and by property rights and other securities. Moreover, in spite of many protestations to the contrary—and there are many instances of such verbal contentions—the hold that this monogamous pattern had on the Mormons is further evidenced by the development of the practice of a legal marriage to the plural wife next in line if and when the first wife should die. Such a step protected her and her children as legal heirs for a share of the property of the husband and father. It also gave to this wife the traditional sanctions of legitimacy and public status. Yet the husband did not always accede to this practice.

From a social-psychological standpoint, it seems to the author that this inclination to secure a legal foundation of marriage was more than a strictly utilitarian device to protect their would-be property rights and legitimize their children. It symbolizes the fact that, in spite of verbal assertion and concrete overt efforts to adapt themselves to polygyny, they still retained emotionally many reservations about it. They found in such a legal step a support that tended to provide a needed supplement to that received from the community or from their own inner convictions. After all, such striking alterations in sexual values and in the habits of affection as are implied in polygyny are not to be acquired so quickly as the conscious declarations of adherence to the "Principle" might lead one to believe.

The Mormon polygynous system, throughout its entire history, was a rather unstable institution. Not only was there great variation in the manner in which the interspouse relations were worked out in practice but there was never any too great assurance that a given family configuration, once in operation, would remain constant for any fixed time and place. This meant, therefore, that the individuals involved were always exposed to a certain threat to their accepted role and status, i.e., psychologically to their ego security and self-esteem. Sometimes the replacement of the first wife by a second was accomplished without much overt evidence of strain. In other situations, there was a great deal of emotional distress and aggressive bitterness.

In contrast to a relatively mild adjustment, we find others in which there was much overt antagonism. Sometimes this was obvious from the very inception of the plural marriage. In other cases, the conflict developed gradually. A somewhat tragic but withal amusing instance is the following:

> Mr. A. A.'s first wife was strongly opposed to his taking a second wife, especially one so much younger—at least this was the rationalization. The husband provided a new home for his second wife and planned to take her there when they returned from Salt Lake City, where the couple repaired for a proper ecclesiastical marriage. On the return trip, by team, they stopped with friends of the husband who had helped promote the

polygynous match. Rather late at night, the couple continued on their journey to their new home. When they arrived, they found the place locked and barred. On breaking in, they found that all the furnishings had been removed. They had to return to the home of the friend, who took them in for the balance of the night. As the husband suspected, this was more than a mere joke and had been managed by the other wife, who used this device as a form of revenge on her husband.

In a good many instances, the conflict became so intense that complete separation was the only evident solution. The following is from the life history of Mr. Z., whose first marriage occurred in 1842, when he was 20 years of age. His second marriage took place in 1862, when his first family was pretty well grown up. He writes:

> After I had entered into the Celestial order of marriage, my first wife became very dissatisfied and jealous, and wanted to take her children to live by themselves. I was sorry to have such a thing done, but as matters were getting worse, I thought it better for her, and also for me. I divided the property, and they have increased in property, having lived and worked by the cooperative principle.

Still another interpersonal pattern in plural marriage consisted in a kind of progression in the position of dominance in terms of successive marriages.

In the case of L., the father is reported to have always had a strong interest in young women. He did not marry his first plural wife, however, until he was 49 years of age, and, in the words of one informant, a daughter of the first wife, this marriage "nearly killed mother." Her affection for her husband seemed to be suppressed rather completely after that, and she remarked that she "didn't care how many women he married." Nine years later, L. was ready to try a third matrimonial venture, and on this occasion it was the second wife, Julia, who suffered intensely. But she got little or no comfort from Annie, the first wife, who took occasion to remind her how *she* felt when L. had married the second time. Julia, in turn, "never acted the same toward father again, and besides she always manifested a nasty attitude toward Luella, the third wife, who supplanted her."

In another instance, the husband took on six wives altogether and, like L., appeared to be a man easily "infatuated" by attractive young women. There was in these cases a kind of "hierarchy of heartbreak," as one informant put it, in each instance the newest wife replacing the others in the husband's affections and taking for a time the position of highest status.

It is already clear that wide divergences in the form of interspouse adjustment occurred, including both a wide variety in motivation and in occasion for getting, holding, and losing particular roles and high status. Let us examine still other devices for maintaining prestige, some culturally accepted, others not.

There were a number of accepted ways of keeping a dominant position in the household, many of them, of course, carried over from monogamy, such as the right to serve and to be a helpmate. In the traditional patriarchal family, the wife is accorded a certain status if she is a thrifty and tidy household manager. In some instances, a sharp rivalry sprang up among the plural wives in their efforts to outdo each other in these matters and thus to accumulate a certain kudos from the husband—a prestige that, as a rule, was supported by the broader community approval.

In the case of W. W., for example, the right to play the role of helpmate of the husband was for years the most concrete evidence of the second wife's status. The informant, a daughter, said that her mother "was a very fine seamstress and always made father's shirts." Regarding the division of time, she remarked, "Father divided his time between the wives by 2-week intervals. During his stay the wife he was visiting did all his washing and other services. I have seen my mother in tears because father

didn't bring his laundry for her to do. She was so afraid she hadn't done it right last time."

These matters took on profound symbolic significance of security. The informant in the J. case proudly remarked, "Father always considered mother's place 'home.' He kept his clothes there." Loss of status was often indicated by some shift in just such day-by-day routine. The informant of M. M., a prominent Saint, states:

"The first wife was a very dominant person who kept her perogatives by running her husband's affairs in his absence. Also, as day-by-day evidence of her status, she acted as custodian of her husband's Sunday clothes; she did his laundry; and he always went to her house for his Sunday bath. In 1896, he married his fifth wife, described as "an entrancing widow" who had considerable money. She built a fine new home for her husband with modern plumbing and other conveniences. This fifth marriage was a severe blow to the first wife, because, among other changes, M. M. took his Sunday clothes to the new home and began to use the modern bath facilities there. Not only did the first wife lose caste by this marriage but Cecelia, the fourth, also strongly resented M. M.'s marrying the widow, since Cecelia lost her somewhat favorable status as the youngest wife."

Because of a variety of factors, such as division of time of husband among the wives and disparate households, the discipline of the children tended to be taken over by the mothers. Of course, in some families the paternal authority remained supreme and at times very severe. At the other extreme was the father who took almost no direct responsibility for controlling or training his children. Thus, one son of a polygynous family reports that each wife developed her own devices for managing the children:

There was never any corporal punishment in the R. R. families. The mothers taught the children to respect their father and never overruled any decision of his. However, the children almost invariably went to their mothers for advice, counsel, or permission to do things. Doubtless this practice arose, in part, because the father was so seldom at home.

The fact that the home management and the discipline and training of the young children lay so largely in the hands of the wives gave them considerable personal satisfaction and sense of importance. There is some evidence of rivalry regarding these matters, just as there was with regard to capacity as a housekeeper. The wives often vied with each other for approval from the husband and community with respect to their children's manners, health, and willingness to work.

Note has already been made of the fact that striving for personal status and ego assurance was bound up with the struggle for economic security. Since the plural wife had no legal rights to inheritance, it became all the more essential that the wives secure land and other property from their husbands that would afford them a certain economic backlog in case of the husband's death. It was a common practice for the husband to deed a home and small parcel of land to each wife. In some families, he even gave them rather considerable properties. But in other cases, he retained a rather firm hand on the economic sources of control.

The general theory of polygyny was that the husband should provide for his wives equally in all things, physical and psychological, but it was obviously not possible to do so. Although in most of my cases, the husbands appear to have made such an effort with respect to property, the wives themselves used economic as well as other means to establish their prestige and to build up their sense of self-esteem. Not only was high status marked by living in a good house and having sufficient economic resources for the family and for occasional entertainment, but the struggle to get

economic security led the wives to seek various means of money-making on their own initiative. The simplest form of this was the selling of milk, eggs, and garden produce. As a rule, this did not mean much more than pin money, but it did symbolize a certain independence. The case of Q. illustrates the matter:

Seven years after his second marriage, Q. moved both families to a 160-acre farm, where he built two identical adobe houses about 75 yards apart. Each house had a garden and chicken coop. There was a single granary, and the father and the boys operated the farm.

Each wife had her own flock of chickens, turkeys, and geese. Each also owned a number of cows; the calves and dairy products belonged to the wife whose stock produced them. Feed for the animals was taken from the common granary or barn. "It cost the wives nothing," as the informant remarked.

The energy of the wife determined the extent of her financial success from her garden, poultry, and livestock. The first wife did very well; the second was much less adequate. The former, having more ready cash, bought better clothes for her children. To this the second wife would protest. Without sufficient funds from her own enterprises, she nagged Q. until he bought her children things as good "out of his own pocket." There was no overt strife, however. Her technique consisted simply in letting her husband know that "Sally had nothing to wear to Sunday school," whereas Julia had a new dress. As a rule, Sally got the new dress.

In a number of families, a wife who was a good seamstress or milliner or weaver might set herself up in such handicraft and often was able to supplement the family's income considerably as well as to give herself a sense of freedom.

Housekeeping, management of children, and a certain amount of economic self-sufficiency constituted factors for creating and maintaining ego status. Threats to high status were, as we have seen, met in various ways; some of the devices even represented divergences from the expected polygynous patterning. In particular, the place of more or less direct sex appeal, of jealousy and envy, and of certain overt manifestations of aggression will be noted.

Although polygyny carried over from monogamy certain romantic patterns in which more or less direct sexual appeal played a part, it must be recalled that under the traditional pietistic Christian theory and under the impact of the strong patriarchal and priestly system of the Mormons, the direct sexual elements were officially, at least, somewhat disregarded. There has been much discussion of Mormon polygyny as if it represented an extension of the erotic interest of leaders and men of property in young and beautiful women. No doubt direct sexual appeal had its place, especially in those instances in which men well past 40 married young wives, but it would be a mistake to assume that plural marriage is to be explained on this basis. M. R. Werner, in fact, has aptly dubbed it "Puritan polygamy," meaning thereby that the plural households were in effect merely extensions of a strict puritanical monogamy.[8]

Although the courtship patterns ranged all the way from the mildly romantic to the highly utilitarian, in which the match was to all intents and purposes made by the parents of the girl and the would-be husband, the employment after marriage of direct sexual appeal through clothes, conversation, coyness, and the usual techniques of romantic love often set up tremendous resistances on the part of the competing wives. If this sort of thing became too obvious, it might also bring down ridicule and other forms of disapproval on the man. The impress of the official dogma was such that the community members—whether them-

[8] See M. R. Werner, *Brigham Young* (New York: Harcourt, Brace & Co., 1925), especially ch. 7.

selves from monogamous or polygynous households—tended to apply the official criteria to particular cases. A young man who was kept from marrying an attractive woman by her marriage to an older and prosperous polygamist might easily disapprove of the very sexual romantic reactions of this woman toward her new husband, which, had they been applied to him in monogamy, would have been approved by himself and by the community.

In the same manner, the use of jealousy and envy—the twin tools of control in monogamy—became disapproved of with reference to plural families. This type of behavior sometimes broke out within the family circle, though with far less frequency than one might imagine possible among people who had been brought up in a monogamous society. The jealousy and envy tended to be suppressed, and the aggression that accumulated therefrom was usually directed elsewhere.

In a few instances, plural wives risked using charm and romantic appeals outside the family in order to arouse a husband's jealousy in the hope of gaining his favor. In the case of M., the husband had three wives. He was a rather severe disciplinarian and at times avoided his wives. After the death of the first wife, the second, Clara, became the dominant spouse.

Clara was an easygoing, jolly, attractive woman who enjoyed attending social gatherings, dances, picnics, etc., in the community. Because of the husband's rather severe and restrictive attitudes, she took to planning parties and other affairs for the nights when he was with his other wife. She liked to go to "basket parties" and dances, and at the basket parties she always brought her own basket and had as gay a time as any young and unmarried woman there. She would flirt in a mild way and always insisted that the young man who bought her basket should take her home after the party. The husband disapproved of this, but she persisted in such practices.

Although such conduct might amuse some of the younger members of the community and lead to some gossip about how a certain wife was making her husband jealous, there was always the likelihood that the husband would take severe measures, even going so far as to divorce the wife. Nothing of this sort happened in the case just cited, but it was not wise procedure in such a society.

As we look over the entire array of cases, then, we find a wide range of adaptation. In a large number, there is full faith in plural wifehood. It is well accepted, at least at the conscious level. In others, there is more overt resentment, exemplified in the struggle for status, in jealousy and envy, and in open quarreling. Finally, there were a few extreme adaptations, such as "flight" into invalidism, alcoholism, and psychopathology. The overt adjustments are no different from those found in monogamy; but they have a somewhat different source and a somewhat different meaning for the individuals concerned.

It is clear that this system, in spite of its conscious acceptance, in spite of its religio-emotional quality or faith, induced a great deal of anxiety and disorganization in many of the participants. For many, the "Principle" was not sufficient to overcome the power of long-established attitudes and values. Yet a large number of the participants apparently took on the new ideas and practices without much strain, and it would be a mistake to assume that the practice was always purchased at a high emotional price. In the first place, intense emotional conversion or reconditioning that characterized full acceptance of the divine mission of Joseph Smith and Brigham Young and all that this implied as to obedience, ritual, and everyday living could and did carry along with it full emotional and behavioral acceptance of polygyny. In addition, the system may have some biological foundations that

cannot be gainsaid. Certainly there is no evidence that man is instinctively a monogamous animal or innately given over to jealousy or possessiveness. On the contrary, there are many data from many primitives and from our anthropoid relatives to support the idea of polygamous contacts. One might raise the question—the problem of sex ratios being neglected for the nonce—whether polygyny might not provide as sound a biosocial foundation for society as a rigidly monogamous one. Once the cultural patterns were well grounded, many of the distresses noted from the Mormon data might well disappear.

4.

CHANGES IN SEX GROUPINGS OF SCHOOL CHILDREN

By J. L. Moreno

The growth of the individual organism as a unity from simpler to more highly differentiated levels is well recognized. But the development of a society of individuals is still problematic. Does society change only, or does it grow? Both points of view have found advocates. It is similar with other general assumptions, as, that civilizations grow and decline (Spengler) or that they are ever-changing, their form conditioned by economic forces (Marx). The question is if these processes must take their course of necessity or if they are subject-able to control. Experimentation only can decide, a form of sociogenetic experiment which begins to work with the simplest groups first and step by step approaches more complex ones. It must be understood that when we say higher and lower differentiation we do not imply any judgment of value (good or bad) as, for instance, that a more highly differentiated group is an improved group, a less differentiated, an impaired group. We are only expressing varying levels of differentiation as they are found in the structures and as they are related to different criteria.

At first the test was arranged for groups of babies from birth on, all participants of any one group being on the same age level. The babies were placed in close proximity in the same room in which they were and had been living since birth. The objective of the study was to ascertain what types of structures appear earliest in the evolution of groups during the first three years of life. The infant-to-infant relations were observed. The point was not whether the reactions of each individual were a really social response or not but primarily if group organization resulted from the accumulative effect of their interaction and what forms it took. The main lines of development may be summarized as follows: a stage of *organic isolation* from birth on, a group of isolated individuals each fully self-absorbed; a stage of *horizontal* differentiation of structure from about 20–28 weeks on, when the babies begin to react towards each other, the factor of physical proximity and physical distance making respectively for psychological proximity or psychological distance, the "acquaintance" beginning with neighbors first, — a horizontal dif-

From J. L. Moreno, *Who Shall Survive? A New Approach to the Problem of Human Interrelations* (Washington: Nervous and Mental Disease Monograph Series, No. 58, 1934). Reprinted by permission of the author and the Beacon House, publishers.

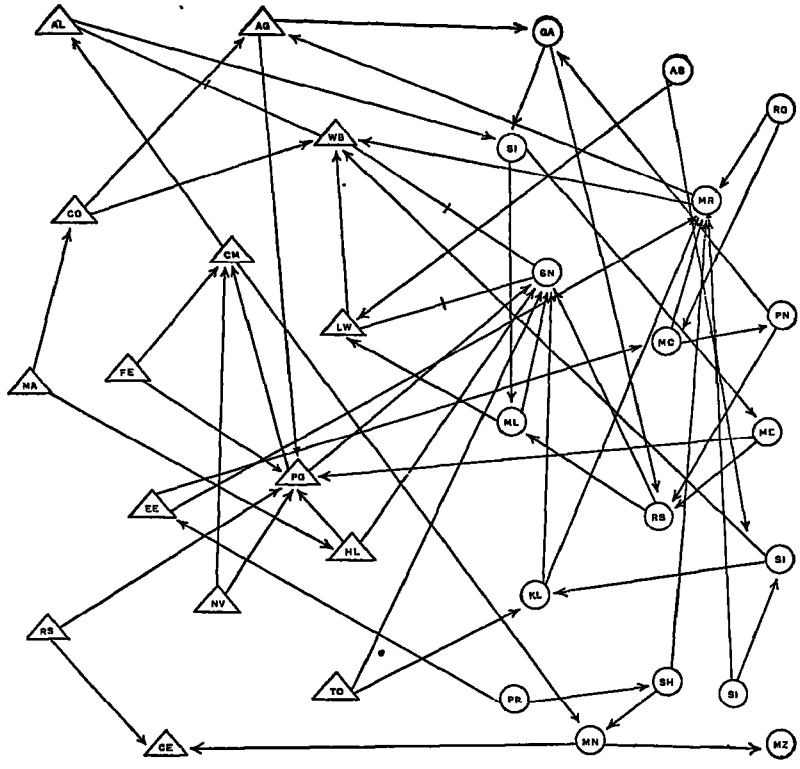


FIG. 1. Structure of a kindergarten. 15 boys and 18 girls. *Unchosen* 9, RS, NV, FE, MA, TO, AS, RG, SI, PR; Pairs 3, AL–WB, WB–SN, SN–LW; *Stars*, (Centers of Attractions), PG, SN, MR; *Chains* (of relationships), 0; *Triangles*, 0; *Inter-sexual Attractions*, 19.

ferentiation of structure; a stage of *vertical* differentiation of structure from about 40–42 weeks on, when one or another infant commands disproportionate attention shifting the distribution of emotion within the group from the horizontal to a vertical differentiation of structure, the group which had been up to this point equally "levelled," developing more prominent and less prominent members, a "top" and a "bottom." No one stage appears to function exclusively at any one level: there appears to be a "hangover." This phenomenon seems to account largely for the growing complexity of organization which one meets with at the higher chronological age levels.

As the next step the sociometric test was given to the boys and girls of all classes from the kindergarten through the 8th grade in a public school. It was required to choose among their classmates those whom each wants to have stay in the same classroom and to sit near him. A quantitative analysis of their choices revealed that the attractions between the sexes, boys choosing girls and girls choosing boys, was highest in kindergarten and 1st grade, 25 percent and 27 percent respectively of all the choices made; that this ratio of attraction fell in the 2d grade to $16\frac{1}{2}$ percent; in the 3rd grade, to $8\frac{1}{2}$ percent; in the 4th grade, to $2\frac{1}{2}$ percent, its lowest level; showed a slight increase in the 5th, 6th, and 7th grades with 4 percent, $3\frac{1}{2}$ percent, and 3 percent, respectively; and gained an increase in the 8th grade with

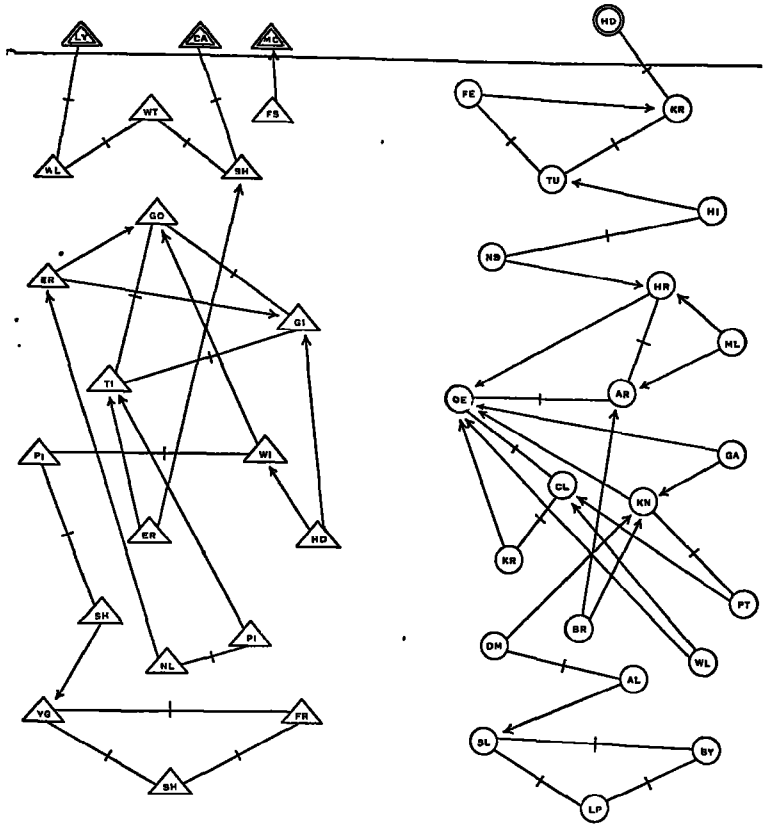


FIG. 2. Class structure, 6th grade. 18 boys and 21 girls. *Unchosen*, 6, FS, HD, ML, GA, BR, WL; *Pairs*, 26, WL–WT, WT–SH, GO–TI, GO–GI, TI–GI, PI–WI, PI–SH, NL–PI, YG–FR, YG–SH, SH–FR, DM–AL, SL–BY, SL–LP, LP–BY, FE–TU, TU–KR, NS–HI, HR–AR, OE–AR, OE–CL, CL–KR, KN–PT, WL–LY, CA–SH, KR–HD; *Stars*, 1, OE; *Chains*, 2, LY–WL–WT–SH–CA, HR–AR–OE–SL–KR; *Triangles*, 3, YG–FR–SH, GO–TI–GI, SL–LP–BL; *Inter-sexual Attractions*, 0.

8 percent. It revealed a greater initiative on the part of girls, more girls choosing boys than boys choosing girls, in the kindergarten, 15 percent versus 10 percent. From the 1st grade up to the 5th grade, however, the initiative of boys in choosing girls is about twice as great as that of girls in choosing boys. In the 6th, 7th, and 8th grades boys and girls are about equal.

As a consequence of the test given to these pupils a complex structure of the class organization was uncovered, widely differing from the prevalent one. A number of pupils remained unchosen, or isolated; a number chose each other, forming mutual pairs, triangles, or chains; others attracted so many choices that they captured the center of the stage like stars.

The number of individuals isolated, that is, unchosen by their own classmates, fluctuated between 15 percent and 35 percent in the various classes. The number of isolated was highest in the kindergarten. This percentage decreased gradually from the 2nd grade on to the 7th grade: 28 percent, 2nd grade;

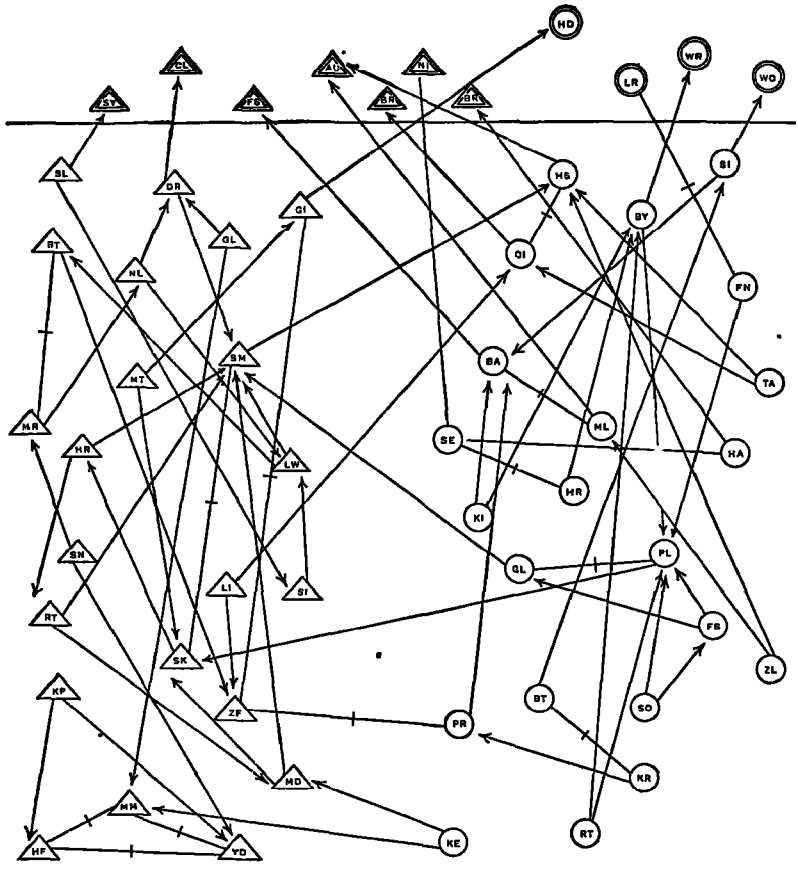


FIG. 3. Class structure, 8th grade. 22 boys and 22 girls. *Unchosen*, 12, KP, GL, SN, LI, SL, MT, KE, SO, ZL, KI, HA, RA; *Pairs*, 13, BT–MR, SM–SK, GI–ZF, HF–MM, MM–YD, HF–YD, ZF–PR, BT–KR, GL–PL, SE–HR, HS–OI, BA–ML, FN–LR; *Stars*, 2, SM, PL; *Chains*, 0; *Triangle*, 1, HF–MM–YD; *Inter-sexual Attractions*, 8.

26 percent, 3rd grade; 18 percent, 4th grade; 15 percent, 5th grade; 19 percent, 6th grade; 20 percent, 7th grade; 18 percent, 8th grade. The percentage of mutual pairs was lowest in the kindergarten, 7 percent; rose slowly to 9 percent in the 1st grade; to 13 percent in the 2nd grade; to 18 percent in the 3rd grade; to 20 percent in the 4th grade; and reached its highest point in the 5th grade, 27 percent. In the 6th grade it fell one point, to 26 percent; fell another point in the 7th grade, to 25 percent; and in the 8th grade, fell to 20 percent. The forming of more complicated structures, such as triangles, chains, etc., was lowest in the kindergarten and 1st grade, here they were totally absent; and rose slowly to reach the highest point in the 7th and 8th grades in which more than half of the pupils participated in them.

Parallel with the test given to the pupils, a judgment test was given to their teachers. Each teacher was asked to write the name of the boy and the girl in her classroom who she would judge would receive most of the choices from their classmates and the two who would receive next most; also the name of the boy and the girl whom she would judge

TABLE 1

PUBLIC SCHOOL TEST

QUANTITATIVE ANALYSIS OF CHOICES BETWEEN THE SEXES IN THE GRADES OF A PUBLIC SCHOOL

Of all choices made:	Boys chose girls, percent	Girls chose boys, percent	Both sexes, percent
Kindergarten	10.0	15.0	25.0
1st Grade	19.0	8.0	27.0
2nd Grade	10.0	6.5	16.5
3rd Grade	3.5	5.0	8.5
4th Grade	1.5	1.0	2.5
5th Grade	1.0	4.5	4.0
6th Grade	2.05	2.05	3.5
7th Grade	2.0	1.0	3.0
8th Grade	4.0	4.0	8.0

TABLE 2

STRUCTURAL ANALYSIS OF SCHOOL GROUPS

Grade	Isolated, percent	Mutual pairs, percent	Triangles	Chains
Kindergarten	35	7	0	0
1st Grade	27	9	0	0
2nd Grade	28	13	1	0
3rd Grade	26	18	1	1
4th Grade	18	20	5	4
5th Grade	15	27	3	2
6th Grade	19	26	2	9
7th Grade	20	25	5	7
8th Grade	18	20	3	3

would receive the least choices and the two who would receive next least. In 48 percent of the instances the teachers' judgments coincided with the findings through the sociometric test in respect to the two most chosen boys and girls; in 38 percent of the instances in respect to the two least chosen boys and girls in her classroom.

The test was further given to boys from the ages of 14 to 18 years in a private college preparatory school and resulted as follows: Of 153 boys, 17 remained isolated, i.e., 9 percent; 105 formed mutual pairs, i.e., 68 percent; more complex structures, such as triangles, squares, or chains, were formed by 16 percent. The experimental situation for the college preparatory group was, however, not identical with that used in the public school grades. In the former only boys were subjects and they were given 4 choices instead of 2. About 25 percent of these boys were boarding at the school while the remainder were day students.

5.

THE RATING AND DATING COMPLEX

By Willard Waller

Courtship may be defined as the set of processes of association among the unmarried from which, in time, permanent matings usually emerge. This definition excludes those associations which cannot normally eventuate in marriage—as between Negro and white—but allows for a period of dalliance and experimentation. In the present paper we propose to discuss the customs of courtship which prevail among college students.

Courtship practices vary from one culture group to another. In many cultures marriage eventuates from a period of sexual experimentation and trial unions; in others the innocence of the unmarried is carefully guarded until their wedding day. In some cultures the bride must be virginal at marriage; in others this is just what she must not be. Sometimes the young are allowed no liberty of choice, and everything is determined for them by their elders. Sometimes persons marry in their own age group, but in other societies older men pre-empt the young women for themselves. Although there are endless variations in courtship customs, they are always functionally related to the total configuration of the culture and the biological needs of the human animal. It is helpful to remember that in a simple, undifferentiated, and stable society a long and complex process of choosing a mate is apparently not so necessary or desirable as in our own complex, differentiated, and rapidly changing society.[1]

The mores of courtship in our society are a strange composite of social heritages from diverse groups and of new usages called into existence by the needs of the time. There is a formal code of courtship which is still nominally in force, although departures from it are very numerous; the younger generation seems to find the superficial usages connected with the code highly amusing, but it is likely that it takes the central ideas quite seriously. The formal code appears to be derived chiefly from the usages of the English middle classes of a generation or so ago, although there are, of course, many other elements in it.

The usual or intended mode of operation of the formal mores of courtship—in a sense their "function"—is to induct young persons into marriage by a series of progressive commitments. In the solidary peasant community, in the frontier community, among the English middle classes of a few decades back, and in many isolated small communities in present-day America, every step in the courtship process has a customary meaning and constitutes a powerful pressure toward taking the next step—is in fact a sort of implied commitment to take the next step. The mores formerly operated to produce a high rate of marriage at the proper age and at the same time

From *American Sociological Review*, 1937, II, 727–734. Reprinted by permission of Mrs. Willard Waller and the publisher.

[1] James G. Leyburn quotes an old-fashioned Boer mother who said, "I am sick of all this talk of choosing and choosing. . . . If a man is healthy and does not drink, and has a good little handful of stock, and a good temper, and is a good Christian, what great difference can it make to a woman which man she takes? There is not so much difference between one man and another." [*Frontier Folkways* (New Haven: Yale University Press, 1935), p. 129.] Such an attitude was possible in Boer society as it is not in ours.

protected most individuals from many of the possible traumatic experiences of the courtship period.

The decay of this moral structure has made possible the emergence of thrill-seeking and exploitative relationships. A thrill is merely a physiological stimulation and release of tension, and it seems curious that most of us are inclined to regard thrill-seeking with disapproval. The disapproving attitude toward thrill-seeking becomes intelligible when we recall the purpose of such emotional stirrings in the conventional mores of courtship. Whether we approve or not, courtship practices today allow for a great deal of pure thrill-seeking. Dancing, petting, necking, the automobile, the amusement park, and a whole range of institutions and practices permit or facilitate thrill-seeking behavior. These practices, which are connected with a great range of the institutions of commercialized recreation, make of courtship an amusement and a release of organic tensions. The value judgment which many lay persons and and even some trained sociologists pass upon thrill-seeking arises from the organizational mores of the family—from the fact that energy is dissipated in thrills which is supposed to do the work of the world, i.e., to get people safely married.

The emergence of thrill-seeking furthers the development of exploitative relationships. As long as an association is founded on a frank and admitted barter in thrills, nothing that can be called exploitative arises. But the old mores of progressive commitment exist, along with the new customs, and peculiar relationships arise from this confusion of moralities. According to the old morality a kiss means something, a declaration of love means something, a number of Sunday evening dates in succession means something, and these meanings are enforced by the customary law, while under the new morality such things may mean nothing at all—that is, they may imply no commitment of the total personality whatsoever. So it comes about that one of the persons may exploit the other for thrills on the pretense of emotional involvement and its implied commitment. When a woman exploits, it is usually for the sake of presents and expensive amusements—the common pattern of "gold-digging." The male exploiter usually seeks thrills from the body of the woman. The fact that thrills cost money, usually the man's money, often operates to introduce strong elements of suspicion and antagonism into the relationship.

With this general background in mind, let us turn to the courtship practices of college students. A very important characteristic of the college student is his bourgeois pattern of life. For most persons, the dominant motive of college attendance is the desire to rise to a higher social class; behind this we should see the ideology of American life and the projection of parents' ambitions upon children. The attainment of this life goal necessitates the postponement of marriage, since it is understood that a new household must be economically independent; additional complications sometimes arise from the practice of borrowing money for college expenses. And yet persons in this group feel very strongly the cultural imperative to fall in love and marry and live happily in marriage.

For the average college student, and especially for the man, a love affair which led to immediate marriage would be tragic because of the havoc it would create in his scheme of life. Nevertheless, college students feel strongly the attractions of sex and the thrills of sex, and the sexes associate with one another in a peculiar relationship known as "dating." Dating is not true courtship, since it is supposed not to eventuate in marriage; it is a sort of dalliance relationship. In spite of the strength of the old morality among college students, dating is largely dominated by the quest of the thrill and is regarded as an amusement. The fact that college attendance usually removes

the individual from normal courtship association in his home community should be mentioned as a further determinant of the psychological character of dating.

In many colleges, dating takes place under conditions determined by a culture complex which we may call the "rating and dating complex." The following description of this complex on one campus is probably typical of schools of the sort:

X College, a large state-supported school, is located in a small city at a considerable distance from larger urban areas. The school is the only industry of the community. There are few students who live at home, and therefore the interaction of the young is but little influenced by the presence of parents. The students of this college are predominantly taken from the lower half of the middle classes, and constitute a remarkably homogeneous group; numerous censuses of the occupations of fathers and of living expenses seem to establish this fact definitely. Nevertheless, about half of the male students live in fraternities, where the monthly bill is usually forty-five or fifty dollars a month, rarely as high as fifty-five. There is intense competition among the fraternities. The desire for mobility of class, as shown by dozens of inquiries, is almost universal in the group and is the principal verbalized motive for college attendance.

Dating at X College consists of going to college or fraternity dances, the movies, college entertainments, and to fraternity houses for victrola dances and "necking"; coeds are permitted in the fraternity parlors, if more than one is present. The high points of the social season are two house parties and certain formal dances. An atypical feature of this campus is the unbalanced sex ratio, for there are about six boys to every girl; this makes necessary the large use of so-called "imports" for the more important occasions, and brings it about that many boys do not date at all or confine their activities to prowling about in small industrial communities nearby; it also gives every coed a relatively high position in the scale of desirability; it would be difficult to say whether it discourages or encourages the formation of permanent attachments. Dating is almost exclusively the privilege of fraternity men, the use of the fraternity parlor and the prestige of fraternity membership being very important. Freshman men are forbidden by student tradition to have dates with coeds.[2]

Within the universe which we have described, competition for dates among both men and women is extremely keen. Like every other process of competition, this one determines a distributive order. There are certain men who are at the top of the social scramble; they may be placed in a hypothetical Class A. There are also certain coeds who are near the top of the scale of dating desirability, and they also are in Class A. The tendency is for Class A men to date principally Class A women. Beneath this class of men and women are as many other classes as one wishes to create for the purposes of analysis. It should be remembered that students on this campus are extremely conscious of these social distinctions and of their own position in the social hierarchy. In speaking of another student, they say, "He rates," or "He does not rate," and they extend themselves enormously in order that they may rate or seem to rate.

[2] J. K. Folsom, who has studied this same process, has come to essentially similar conclusions concerning the exclusion of certain persons from the dating process: "This factor is especially prominent in state universities with a vigorous fraternity culture and social stratification. Such institutions are attended by students from an unusually wide range on the social scale; there is a tendency to protect one's social ranking in college through a certain snobbishness, and there is also a great drive toward social climbing. Fraternities are important agencies in this struggle for prestige. The fraternities and sororities apply considerable pressure to the 'dating' of their members. One gets merits, whether formally recorded or not, for dating with a coed of a high-ranking fraternity, demerits for association with a non-fraternity person. The net result of this competition might seem to be to match each person with one of fairly equal rank, as happens in society in general. But there is another result. It is to discourage matching altogether among the lower ranks. The fire of competitive dating burns hot at the top, smoulders at the bottom. The low-ranking student often has more to gain by abstaining from dating than from dating with a person of his own rank." [*The Family* (New York: John Wiley & Sons, Inc., 1934), p. 341.]

Young men are desirable dates according to their rating on the scale of campus values. In order to have Class A rating they must belong to one of the better fraternities, be prominent in activities, have a copious supply of spending money, be well dressed, "smooth" in manners and appearance, have a "good line," dance well, and have access to an automobile. Members of leading fraternities are especially desirable dates; those who belong to fraternities with less prestige are correspondingly less desirable. I have been able to validate the qualities mentioned as determinants of campus prestige by reference to large numbers of student judges.

The factors which appear to be important for girls are good clothes, a smooth line, ability to dance well, and popularity as a date. The most important of these factors is the last, for the girl's prestige depends upon dating more than anything else; here as nowhere else nothing succeeds like success. Therefore the clever coed contrives to give the impression of being much sought after even if she is not. It has been reported by many observers that a girl who is called to the telephone in the dormitories will often allow herself to be called several times, in order to give all the other girls ample opportunity to hear her paged. Coeds who wish campus prestige must never be available for last minute dates; they must avoid being seen too often with the same boy, in order that others may not be frightened away or discouraged; they must be seen when they go out, and therefore must go to the popular (and expensive) meeting places; they must have many partners at the dances. If they violate the conventions at all, they must do so with great secrecy and discretion; they do not drink in groups or frequent the beer-parlors. Above all, the coed who wishes to retain Class A standing must consistently date Class A men.

Cressey has pointed out that the taxi-dancer has a descending cycle of desirability. As a new girl in the dance hall, she is at first much sought after by the most eligible young men. Soon they tire of her and desert her for some newer recruit. Similarly the coed has a descending cycle of popularity on the campus which we are describing, although her struggle is not invariably a losing one. The new girl, the freshman coed, starts out with a great wave of popularity; during her freshman year she has many dates. Slowly her prestige declines, but in this case only to the point at which she reaches the level which her qualities permanently assure her. Her descent is expedited by such "mistakes," from the viewpoint of campus prestige, as "going steady" with one boy (especially if he is a senior who will not return the following year), by indiscretions, and by too ready availability for dates. Many of the girls insist that after two years of competitive dating they have tired of it and are interested in more permanent associations.

This thrill-dominated, competitive process involves a number of fundamental antagonisms between the men and the women, and the influence of the one sex group accentuates these. Writes one student informant, a girl. "Wary is the only word that I can apply to the attitude of men and women students toward each other. The men, who have been warned so repeatedly against coeds, are always afraid the girls are going to 'gold-dig' them. The coeds wonder to what degree they are discussed and are constantly afraid of being placed on the black list of the fraternities. Then too they wonder to what extent they can take any man seriously without being taken for a 'ride.'" Status in the one-sex group depends upon avoiding exploitation by the opposite sex. Verbatim records of a number of fraternity "bull sessions" were obtained a few years ago. In these sessions members are repeatedly warned that they are slipping, those who have fallen are teased without mercy, and others are warned not to be soft. And almost all of the participants pretend a ruthlessness toward the opposite sex which they do not feel.

This competitive dating process often inflicts traumas upon individuals who stand low in the scale of courtship desirability. "While I was at X College," said a thirty-year-old alumnus, "I had just one date. That was a blind date, arranged for me by a friend. We went to the dorm, and after a while my girl came down and we were introduced. She said, 'Oh, I'm so sorry. I forgot my coat. I'll have to go get it.' She never came down again. Naturally I thought, 'Well what a hit I made!'" We have already seen that nonfraternity men are practically

girl's list from dating; it remains to note that many girls elect not to date rather than take men who are available to them. One girl writes: "A girl's choice of whom to fall in love with [is] limited by the censorship of the rest of the group. Every boy that she dates is criticized and criticized by the other members of the group. This rigid control often kept a girl from dating at all. If a girl is a member of a group in which the other girls are rated higher on the dating scale than she and she is often unable to get dates—the boys she is considered desirable by her friends. In that event she has to decide whether to date the boys that she can and those girl friends who would approve or she must resign herself to not dating."

Since the class system, or gradient of dating desirability on the campus, is clearly recognized and adjusted to by the students themselves, there are interesting accommodation and rationalization which appear as a result of inferior status. Although members of Class A may be clearly in the ascendant as regards prestige, certain groups of Class B may contest the position with them and may insist upon a measuring stick which will give them a favorable position. Rationalizations which enable Class D men and women to accept one another are probably never completely effective.

The accommodations and rationalizations worked out by one group of girls who were toward the bottom of the scale of campus desirability are typical. Four of these girls were organized in one tightly compact "bunch." All four lived off campus, and worked for their room and board. They had little money to spend for clothes, so there was extensive borrowing of dresses. Members of the group cooperated in getting dates for one another. All of them accepted eleventh hour invitations, and probably realized that some stigma of inferiority was attached to such ready availability, but they managed to save their faces by seeming very reluctant to accept such engagements, and at length doing so as a result of the persuasion of another member of the bunch. The men apparently saw through these devices, and put these girls down as last minute dates, so that they rarely received any other invitations. The bunch went through "dating cycles" with several fraternities in the course of a year, starting when one of the girls got a date with one member of the fraternity, and ending, apparently, when all the girls had lost their desirability in that fraternity.

Partly as result of the unbalanced sex ratio, the boys of the group which we are discussing have a widespread feeling of antagonism toward the coeds. This antagonism is apparently based upon the fact that most of the male students are unable to date with coeds, at least not on terms acceptable to themselves. As a result of this, boys take great pride in the "imports" whom they bring in for house parties, and it is regarded as slightly disgraceful in some groups to date a coed for one of the major parties. Other men in the dateless group take on the role of misogynists—and read Schopenhauer.

During the winter term the preponderance of men assures to every coed a relatively high bargaining power. Every summer witnesses a surprising reversal of this situation. Hundreds of women schoolteachers flock to this school for the summer term, and men are very scarce; smooth, unmarried boys of college age are particularly scarce. The schoolteachers are older than the boys; they have usually lost some of their earlier attractiveness; they have been living for some months or years within the schoolteacher role. They are man-hungry, and they have a little money. As a result, there is a great proliferation of highly commercialized relations. The women lend their cars to their men friends, but continue to pay for repairs and gasoline; they take the boys out to dinner, treat them to drinks, and buy expensive presents for them. And many who do not go so far are available for sex relations on terms which demand no more than a transitory sort of commitment from the man.

The rating and dating complex varies enormously from one school to another. In one small, coeducational school, the older coeds instruct the younger that it is all right for them to shop around early in the year, but by November they should settle down and date someone steadily. As a result, a boy who dates a girl once is said to "have a fence around

her," and the competition which we have described is considerably hampered in its operation. In other schools, where the sex ratio is about equal, and particularly in the smaller institutions, "going steady" is probably a great deal more common than on the campus described. It should be pointed out that the frustrations and traumas imposed upon unsuccessful candidates by the practice of "going steady" (monopolistic competition) are a great deal easier to bear than those which arise from pure competition. In one school the girls are uniformly of a higher class origin than the boys, so that there is relatively little association between them; the girls go with older men not in college, the boys with high school girls and other "townies." In the school which is not coeducational, the dating customs are vastly different, although, for the women at least, dating is still probably a determinant of prestige.

True courtship sometimes emerges from the dating process, in spite of all the forces which are opposed to it. The analysis of the interaction process involved seems to be quite revealing. We may suppose that in our collegiate culture one begins to fall in love with a certain unwillingness, at least with an ambivalent sort of willingness. Both persons become emotionally involved as a result of a summatory process in which each step powerfully influences the next step and the whole process displays a directional trend toward the culmination of marriage; the mores of dating break down and the behavior of the individuals is governed by the older mores of progressive commitment. In the fairly typical case, we may suppose the interaction to be about as follows: The affair begins with the lightest sort of involvement, each individual being interested in the other but assuming no obligations as to the continuation of the affair. There are some tentatives of exploitation at the beginning; "the line" is a conventionalized attempt on the part of the young man to convince the young woman that he has already at this early stage fallen seriously in love with her—a sort of exaggeration, sometimes a burlesque, of coquetry. It may be that each person, by a pretense of great involvement, invites the other to rapid sentiment-formation—each encourages the other to fall in love by pretending that he has already done so. If either rises to the bait, a special type of interaction ensues; it may be that the relation becomes exploitative in some degree and it is likely that the relationship becomes one in which control follows the principle of least interest, i.e., that person controls who is less interested in the continuation of the affair. Or it may be that the complete involvement of the one person constellates the other in the same pattern, but this is less likely to happen in college than in the normal community processes of courtship.

If both persons stand firm at this early juncture, there may ensue a series of periodic crises which successively redefine the relationship on deeper levels of involvement. One form which the interaction process may assume is that of "lover's quarrels," with which the novelists have familiarized us. A and B begin an affair on the level of light involvement. A becomes somewhat involved, but believes that B has not experienced a corresponding growth of feeling, and hides his involvement from B, who is, however, in exactly the same situation. The conventionalized "line" facilitates this sort of "pluralistic ignorance," because it renders meaningless the very words by means of which this state of mind could be disclosed. Tension grows between A and B, and is resolved by a crisis, such as a quarrel, in which the true feelings of the two are revealed. The affair, perhaps, proceeds through a number of such crises until it reaches the culmination of marriage. Naturally, there are other kinds of crises which usher in the new definition of the situation.

Such affairs, in contrast to "dating," have a marked directional trend: they may be arrested on any level, or they may be broken off at any point, but they may not ordinarily be turned back to a lesser degree of involvement: in this sense they are irreversible. As this interaction process goes on, the process of idealization is reinforced by the interaction of personalities. A idealizes B, and presents to her that side of his personality which is consistent with his idealized conception of her; B idealizes A, and governs her behavior toward him in accordance with her false notions of his nature; the process of idealization is mutually reinforced in such a way that it must necessarily lead to an increasing divorce from reality. As serious sentimental involvement develops, the individual comes to be increasingly occupied, on the conscious level at least, with the positive aspects of the relationship; increasingly, he loses his ability to think objectively about the other person, to safeguard himself or to deal with the relationship in a rational way; we may say, indeed, that one falls in love when he reaches the point where sentiment-formation overcomes objectivity.

The love relationship in its crescendo phase attracts an ever larger proportion of the conative trends of the personality; for a time it may seem to absorb all of the will of the individual and to dominate his imagination completely; the individual seems to become a machine specially designed for just one purpose; in consequence, the persons are almost wholly absorbed in themselves and their affair; they have an *egoisme à deux* which verges upon *folie à deux*. All of these processes within the pair-relationship are accentuated by the changes in the attitude of others, who tend to treat the pair as a social unity, so far as their association is recognized and approved.

6.

THE PROFESSIONAL THIEF

By Edwin H. Sutherland

The essential characteristics of the profession of theft, as described by the professional thief in the preceding section of this book, are technical skill, status, consensus, differential association, and organization. Two significant conclusions may be derived from analysis of these characteristics. The first is that the characteristics of the profession of theft are similar to the characteristics of any other permanent group. The second is that certain elements run through these characteristics which differentiate the professional thieves sharply from other groups. The similarities and differences will be indicated in the following elaboration of these characteristics and of the implications which may be derived from them.

I. The Profession of Theft as a Complex of Techniques

The professional thief has a complex of abilities and skills, just as do physicians, lawyers, or bricklayers. The abilities and skills of the professional thief are directed to the planning and execution of crimes, the disposal of stolen goods, the fixing of cases in which arrests occur, and the control of other situations which may arise in the course of the occupation. Manual dexterity and physical

From Chic Conwell, *The Professional Thief*, annotated and interpreted by E. H. Sutherland (Chicago: University of Chicago Press, 1937). Copyright 1937 by the University of Chicago. Reprinted by permission of E. H. Sutherland and the publisher.

force are a minor element in these techniques. The principal elements in these techniques are wits, "front," and talking ability. The thieves who lack these general abilities or the specific skills which are based on the general abilities are regarded as amateurs, even though they may steal habitually.[1] Also, burglars, robbers, kidnapers, and others who engage in the "heavy rackets" are generally not regarded as professional thieves, for they depend primarily on manual dexterity or force. A few criminals in the "heavy rackets" use their wits, "front," and talking ability, and these are regarded by the professional thieves as belonging to the profession.

The division between professional and nonprofessional thieves in regard to this complex of techniques is relatively sharp. This is because these techniques are developed to a high point only by education, and the education can be secured only in association with professional thieves; thieves do not have formal educational institutions for the training of recruits.[2] Also, these techniques generally call for cooperation which can be secured only in association with professional thieves. Finally, this complex of techniques represents a unified preparation for all professional problems in the life of the thief. Certain individuals, as lone wolves, develop to a high point the technique of executing a specific act of theft—e.g., forgery—but are quite unprepared in plans, resources, and connections to deal with emergencies such as arrest.

Because some of the techniques are specific, professional thieves tend to specialize on a relatively small number of rackets that are related to one another. On the other hand, because of the contacts in the underworld with criminals of all kinds and because of the generality of some of the techniques of crime, professional thieves frequently transfer for longer or shorter periods from their specialty to some other racket. In some cases they like the new racket better than the old and remain in the new field. In many cases they dislike the new racket. Hapgood's thief was primarily a pickpocket; he participated occasionally in burglaries but never liked burglary and remained at heart a pickpocket; he wrote regarding burglary: "It is too dangerous, the come-back is too sure, you have to depend too much on the nerve of your pals, the 'bits' [prison sentences] are too long, and it is very difficult to 'square' it." [3]

The evidence is not adequate to determine whether specialization has increased or decreased. Cooper asserts that it has decreased and explains the decrease as due to the war, prohibition, and the depression. He asserts specifically that confidence men, who, a generation ago would have been ashamed to engage in any theft outside of their own specialty, are now engaging in banditry, kidnaping, and other crimes, and he gives a detailed description of a conference of confidence men held in Chicago in which they attempted to formulate a code which would prohibit their colleagues from excursions outside their own field.[4] Byrnes showed in 1886 in his

[1] Several statistical studies of habitual thieves, defined in terms of repeated arrests, have been published. Some of these are excellent from the point of view of the problems with which they deal, but they throw little light on professional thieves because they do not differentiate professional thieves from other habitual thieves. See Roland Grassberger, *Gewerbs- und Berufsverbrechertum in den Vereinigten Staaten von Amerika* (Vienna, 1933); Fritz Beger, *Die ruckfälligen Betrüger* (Leipzig, 1929); Alfred John, *Die Rückfallsdiebe* (Leipzig, 1929).

[2] Stories circulate at intervals regarding schools for pickpockets, confidence men, and other professional thieves. If formal schools of this nature have ever existed, they have probably been ephemeral.

[3] Hutchins Hapgood, *Autobiography of a Thief* (New York: Duffield & Co., 1903), p. 107.

[4] Courtney R. Cooper, *Ten Thousand Public Enemies* (Boston: Little Brown & Co., 1935), pp. 271–272; "Criminal America," *Saturday Evening Post*, Apr. 27, 1935, CCVII, 6. A confidence man, when

history of professional criminals in America that many thieves participated for longer or shorter times in crimes outside their own special field.[5]

II. The Profession of Theft as Status

The professional thief, like any other professional man, has status. The status is based upon his technical skill, financial standing, connections, power, dress, manners, and wide knowledge acquired in his migratory life. His status is seen in the attitudes of other criminals, the police, the court officials, newspapers, and others. The term "thief" is regarded as honorific and is used regularly without qualifying adjectives to refer to the professional thief. It is so defined in a recent dictionary of criminal slang: "Thief, *n.* A member of the underworld who steals often and successfully. This term is applied with reserve and only to habitual criminals. It is considered a high compliment." [6]

Professional thieves are contemptuous of amateur thieves and have many epithets which they apply to the amateurs. These epithets include "snatch-and-grab thief," "boot-and-shoe thief," and "best-hold cannon." Professional thieves may use "raw-jaw" methods when operating under excellent protection, but they are ashamed of these methods and console themselves with the knowledge that they could do their work in more artistic manner if necessary. They will have no dealings with thieves who are unable to use the correct methods of stealing.

Professional thieves disagree as to the extent of gradations within the profession. Some thieves divide the profession into "big-time" and "small-time" thieves on the basis of the size of the stakes for which they play, on the preparations for a particular stake, and on connections. A confidence man who regarded himself as "big-time" wrote as follows regarding a shoplifter:

> While he is undoubtedly a professional thief, I should a few years ago [before he was committed to prison] have been ashamed to be seen on the street with him. I say this not out of a spirit of snobbishness but simply because for business reasons I feel that my reputation would have suffered in the eyes of my friends to be seen in the company of a booster [shoplifter].

On the other hand, the thief who wrote this document insisted that there are no essential gradations within the profession:

> I have never considered anyone a small-time thief. If he is a thief, he is a thief—small-time, big-time, middle-time, eastern standard, or Rocky Mountain, it is all the same. Neither have I considered anyone big-time. It all depends on the spot and how it is handled. I recall a heel touch [sneak theft] at ten one morning which showed $21 and three hours later the same troupe took off one for $6,500 in the same place. Were they small-time in the morning and big-time in the afternoon? The confidence men who play against a store [using a fake gambling club or brokerage office] expect to get large amounts. But there is considerable interchange, some working for a time at short con and then at elaborate con rackets. Those who play against a store know those who engage in short con; if not, they have many mutual friends.

This difference in opinion is quite similar to the difference that would emerge if

asked regarding this conference of confidence men in Chicago, said that Cooper's writings regarding it should have been entitled "Mythologies of 1935."

[5] Thomas Byrnes, *Professional Criminals of America* (2 vols.; New York, G. W. Dillingham Co., 1886). Grassberger (*op. cit.*) has several ingenious methods of measuring the extent of specialization, but the conclusions apply to habitual criminals in general rather than to professional thieves, and the habitual criminals in general probably have less tendency to specialize than do the professional thieves.

[6] Noel Ersine, *Underworld and Prison Slang* (Upland, Ind.: A. D. Frecse & Son, 1935).

lawyers or doctors were discussing the gradations within their professions. In any case there is pride in one's own position in the group. This pride may be illustrated by the action of Roger Benton, a forger, who was given a signed blank check to fill out the amount of money he desired; Benton wrote a big "Void" across the face of the check, and returned it to the grocer who gave it to him. He explains, "I suppose I had too much professional pride to use it—after all I was a forger who took smart money from smart banks, not a thief who robbed honest grocerymen." [7]

III. The Profession of Theft as Consensus

The profession of theft is a complex of common and shared feelings, sentiments, and overt acts. Pickpockets have similar reactions to prospective victims and to the particular situations in which victims are found. This similarity of reactions is due to the common background of experiences and the similarity of points of attention. These reactions are like the "clinical intuitions" which different physicians form of a patient or different lawyers form of a juryman on quick inspection. Thieves can work together without serious disagreements because they have these common and similar attitudes. This consensus extends throughout the activities and lives of the thieves, culminating in similar and common reactions to the law, which is regarded as the common enemy. Out of this consensus, moreover, develop the codes, the attitudes of helpfulness, and the loyalties of the underworld.

The following explanation of the emphasis which thieves place on punctuality is an illustration of the way consensus has developed:

> It is a cardinal principle among partners in crime that appointments shall be kept promptly. When you "make a meet" you are there on the dot or you do not expect your partner to wait for you. The reason why is obvious. Always in danger of arrest, the danger to one man is increased by the arrest of the other; and arrest is the only legitimate excuse for failing to keep an appointment. Thus, if the appointment is not kept on time, the other may assume arrest and his best procedure is to get away as quickly as possible and save his own skin.[8]

One of the most heinous offenses that a thief can commit against another thief is to inform, "squeal," or "squawk." This principle is generally respected even when it is occasionally violated. Professional thieves probably violate the principle less frequently than other criminals for the reason that they are more completely immune from punishment, which is the pressure that compels an offender to inform on others. Many thieves will submit to severe punishment rather than inform. Two factors enter into this behavior. One is the injury which would result to himself in the form of loss of prestige, inability to find companions among thieves in the future, and reprisals if he should inform. The other is loyalty and identification of self with other thieves. The spontaneous reactions of offenders who are in no way affected by the behavior of the squealer, as by putting him in Coventry, are expressions of genuine disgust, fear, and hatred.[9] Consensus is the basis of both of these reactions, and the two together explain how the rule against informing grows out of the common experiences of the thieves.

Consensus means, also, that thieves have a system of values and an *esprit de corps* which support the individual thief in his criminal career. The distress of the

[7] *Where Do I Go from Here?* (New York: Lee Furman, Inc., 1936), p. 62 (by permission).

[8] *Ibid.*, p. 269 (by permission).

[9] Philip S. Van Cise, *Fighting the Underworld* (Boston: Houghton Mifflin Co., 1936), p. 321; Josiah Flynt Willard, *Tramping with Tramps* (New York: Century Co., 1899), pp. 23–24, and *My Life* (New York: Baker & Taylor Co., 1908), pp. 331–340.

solitary thief who is not a member of the underworld society of criminals is illustrated in the following statement by Roger Benton at the time when he was an habitual but not a professional forger:

> I had no home, no place to which I could return for sanctuary, no friend in the world to whom I could talk freely. . . . I was a lone man, my face set away from those of my fellows. But I did not mind—at least I didn't think I minded. A little later he became acquainted in St. Louis with Nero's place, which was a rendezvous for theatrical people. I liked Nero. I liked the crowd that gathered in his place and I wanted my evening entertainment there to continue. And I found that I was hungrier for human companionship than I had known. Here I found it. . . . It was a gay interlude and I enjoyed it thoroughly, and neglected my own work of forgery while I played and enjoyed the simple, honest friendships of these children of the stage. Still later, I could not rid myself of the crying need for the sense of security which social recognition and contact with one's fellows and their approval furnishes. I was lonely and frightened and wanted to be where there was someone who knew me as I had been before I had become a social outcast.[1]

Among the criminal tribes of India the individual was immersed almost completely in a consistent culture and felt no distress in attacking an outsider because this did not make him an enemy in any group which had significance for him. Nowhere in America, probably, is a criminal so completely immersed in a group that he does not feel his position as an enemy of the larger society. Even after Roger Benton became a member of the underworld as a professional forger, he felt lonely and ill at ease: "I was sick of the whole furtive business, of the constant need to be a fugitive among my fellows, of the impossibility of settling down and making a home for myself, and of the fear of imprisonment."[2]

The professional thief in America feels that he is a social outcast. This is especially true of the professional thieves who originated in middle-class society, as many of them did. He feels that he is a renegade when he becomes a thief. Chic Conwell states that the thief is looking for arguments to ease his conscience and that he blocks off considerations about the effects of his crimes upon the victims and about the ultimate end of his career. When he is alone in prison, he cannot refrain from thought about such things, and then he shudders at the prospect of returning to his professional activities. Once he is back in his group, he assumes the "bravado" attitudes of the other thieves, his shuddering ceases, and everything seems to be all right. Under the circumstances he cannot develop an integrated personality, but the distress is mitigated, his isolation reduced, and his professional life made possible because he has a group of his own in which he carries on a social existence as a thief, with a culture and values held in common by many thieves. In this sense, also, professional theft means consensus.

IV. The Profession of Theft as Differential Association

Differential association is characteristic of the professional thieves, as of all

[1] *Op. cit.*, pp. 62, 66–67, 80–81 (by permission).

[2] *Ibid.*, p. 242 (by permission).

[3] The document in Part I provides internal evidence of the lack of integration of the professional thief. The tone of the first chapters is significantly different from the tone of the last chapter. In the first chapters the thief is idealized and described in a jaunty manner; in the last chapter the thief is frustrated and regards himself as the principal "sucker." This difference in tone is not due to changes which occurred in the thief during the course of his work on the document, for the materials were not organized in their present form until he had completed his work; some portions of the last chapter were written previous to much of the first chapters. The inconsistency in tone is related to the topics under consideration. The thief assumed one tone when discussing the techniques and the internal relations of the profession and a different tone when discussing the relation of the profession to the larger society.

other groups. The thief is a part of the underworld and in certain respects is segregated from the rest of society. His place of residence is frequently in the slums or in the "white-light" districts where commercial recreations flourish. Even when he lives in a residential hotel or in a suburban home, he must remain aloof from his neighbors more than is customary for city dwellers who need not keep their occupations secret.

The differential element in the association of thieves is primarily functional rather than geographical. Their personal association is limited by barriers which are maintained principally by the thieves themselves. These barriers are based on their community of interests, including security or safety. These barriers may easily be penetrated from within; since other groups also set up barriers in their personal association, especially against known thieves, the thieves are, in fact, kept in confinement within the barriers of their own groups to a somewhat greater extent than is true of other groups. On the other hand, these barriers can be penetrated from the outside only with great difficulty. A stranger who enters a thieves' hangout is called a "weed in the garden." When he enters, conversation either ceases completely or is diverted to innocuous topics.

Many business and professional men engage in predatory activities that are logically similar to the activities of the professional thief. But the widow-and-orphan swindler does not regard himself as a professional thief and is not so regarded by professional thieves. Each regards the other with contempt. They have no occasion to meet and would have nothing to talk about if they did meet. They are not members of the same group.

The final definition of the professional thief is found within this differential association. The group defines its own membership. A person who is received in the group and recognized as a professional thief is a professional thief. One who is not so received and recognized is not a professional thief, regardless of his methods of making a living.

Though professional thieves are defined by their differential association, they are also a part of the general social order. It would be a decided mistake to think of professional thieves as absolutely segregated from the rest of society. They live in the midst of a social order to which they are intimately related and in many ways well adjusted.

First, the thief must come into contact with persons in legitimate society in order to steal from them. While, as a pickpocket, he may merely make physical contact with the clothes and pocketbooks of victims, as a confidence man he must enter into intimate association with them. This intimacy is cold-blooded. The feelings are expressed as by an actor on a stage, with calculations of the results they will produce. He is like a salesman who attempts to understand a prospective customer only as a means of breaking down sales resistance and realizing his own objective of increased sales.

Second, he has some personal friends who are law abiding in all respects. He is generally known to these friends as a thief. In his relations with these friends the reciprocity of services does not involve criminality on either side.

Third, he receives assistance from persons and agencies which are regarded as legitimate or even as the official protectors of legitimate society. In such persons and agencies he frequently finds attitudes of predatory control[13] which are similar to his own. The political machine which dominates the political life of many American cities and rural districts is generally devoted to predatory

[13] I am indebted for this term, "predatory control," to my colleague, Dr. A. B. Hollingshead. It seems to be a proper term to apply to the salesman, described above, to the thief, to many politicians, and to others.

control. The professional thief and the politician, being sympathetic in this fundamental interest in predatory control, are able to cooperate to mutual advantage. This involves cooperation with the police and the courts to the extent that these agencies are under the control of the political machine or have predatory interests independent of the machine. The thief is not segregated from that portion of society but is in close and intimate communication with it not only in his occupational life but in his search for sociability as well. He finds these sympathizers in the gambling places, cabarets, and houses of prostitution, where he and they spend their leisure time.

Fourth, the professional thief has the fundamental values of the social order in the midst of which he lives. The public patterns of behavior come to his attention as frequently as to the attention of others. He reads the newspapers, listens to the radio, attends the picture shows and ball games, and sees the new styles in store windows. He is affected just as are others by the advertisements of dentifrices, cigarettes, and automobiles. His interest in money and in the things that money will buy and his efforts to secure "easy money" fit nicely into the pattern of modern life. Though he has consensus within his own profession in regard to his professional activities, he also has consensus with the larger society in regard to many of the values of the larger society.

V. The Profession of Theft as Organization

Professional theft is organized crime. It is not organized in the journalistic sense, for no dictator or central office directs the work of the members of the profession. Rather it is organized in the sense that it is a system in which informal unity and reciprocity may be found. This is expressed in the *Report of the* [Chicago] *City Council Committee on Crime* as follows:

> While this criminal group is not by any means completely organized, it has many of the characteristics of a system. It has its own language; it has its own laws; its own history; its traditions and customs; its own methods and techniques; its highly specialized machinery for attack upon persons and particularly upon property; its own highly specialized modes of defense. These professional criminals have interurban, interstate and sometimes international connections.[14]

The complex of techniques, status, consensus, and differential association which have been described previously may be regarded as organization. More specifically, the organization of professional thieves consists in part of the knowledge which becomes the common property of the profession. Every thief becomes an information bureau. For instance, each professional thief is known personally to a large proportion of the other thieves, as a result of their migratory habits and common hangouts. Any thief may be appraised by those who know him, in a terse phrase, such as "He is O.K.," "He is a no-good bastard," or "Never heard of him." The residue of such appraisals is available when a troupe wishes to add a new member, or when a thief asks for assistance in escaping from jail.

Similarly, the knowledge regarding methods and situations becomes common property of the profession. "Toledo is a good town," "The lunch hour is the best time to work that spot," "Look out for the red-haired saleslady—she is double-smart," "See Skid if you should get a tumble in Chicago," "Never grift on the way out," and similar mandates and injunctions are transmitted from thief to thief until everyone in the profession knows them. The discussions in the hangouts keep this knowledge adjusted to changing situations. The activi-

[14] P. 164.

ties of the professional thieves are organized in terms of this common knowledge.

Informal social services are similarly organized. Any thief will assist any other thief in a dangerous situation. He does this both by positive actions, such as warning, and by refraining from behavior that would increase the danger, such as staring at a thief who is working. Also, collections are taken in the hangouts and elsewhere to assist a thief who may be in jail or the wife of a thief who may be in prison. In these services reciprocity is assumed, but there is no insistence on immediate or specific return to the one who performs the service.

The preceding description of the characteristics of the profession of theft suggests that a person can be a professional thief only if he is recognized and received as such by other professional thieves. Professional theft is a group-way of life. One can get into the group and remain in it only by the consent of those previously in the group. Recognition as a professional thief by other professional thieves is the absolutely necessary, universal, and definitive characteristic of the professional thief. This recognition is a combination of two of the characteristics previously described, namely, status and differential association. A professional thief is a person who has the status of a professional thief in the differential association of professional thieves.

Selection and tutelage are the two necessary elements in the process of acquiring recognition as a professional thief. These are the universal factors in an explanation of the genesis of the professional thief. A person cannot acquire recognition as a professional thief until he has had tutelage in professional theft, and tutelage is given only to a few persons selected from the total population.

Selection and tutelage are continuous processes. The person who is not a professional thief becomes a professional thief as a result of contact with professional thieves, reciprocal confidence and appreciation, a crisis situation, and tutelage. In the course of this process a person who is not a professional thief may become first a neophyte and then a recognized professional thief. A very small percentage of those who start on this process ever reach the stage of professional theft, and the process may be interrupted at any point by action of either party.

Selection is a reciprocal process, involving action by those who are professional thieves and by those who are not professional thieves. Contact is the first requisite, and selection doubtless lies back of the contacts. They may be pimps, amateur thieves, burglars, or they may be engaged in legitimate occupations as clerks in hotels or stores. Contacts may be made in jail or in the places where professional thieves are working or are spending their leisure time. If the other person is to become a professional thief, the contact must develop into appreciation of the professional thieves. This is not difficult, for professional thieves in general are very attractive. They have had wide experience, are interesting conversationalists, know human nature, spend money lavishly, and have great power. Since some persons are not attracted even by these characteristics, there is doubtless a selective process involved in this, also.

The selective action of the professional thieves is probably more significant than the selective action of the potential thief. An inclination to steal is not a sufficient explanation of the genesis of the professional thief. Everyone has an inclination to steal and expresses this inclination with more or less frequency and with more or less finesse. The person must be appreciated by the professional thieves. He must be appraised as having an adequate equipment of wits, front, talking ability, honesty, reliability, nerve, and determination. The comparative importance of these several characteristics cannot be determined at present, but it

is highly probable that no characteristic is valued more highly than honesty. It is probably regarded as more essential than mental ability. This, of course, means honesty in dealings within their own group.

An emergency or crisis is likely to be the occasion on which tutelage begins. A person may lose a job, get caught in amateur stealing, or may need additional money. If he has developed a friendly relationship with professional thieves, he may request or they may suggest that he be given a minor part in some act of theft. He would, if accepted, be given verbal instructions in regard to the theory of the racket and the specific part he is to play. In his first efforts in this minor capacity he may be assisted by the professional thieves, although such assistance would be regarded as an affront by one who was already a professional. If he performs these minor duties satisfactorily, he is promoted to more important duties. During this probationary period the neophyte is assimilating the general standards of morality, propriety, etiquette, and rights which characterize the profession, and he is acquiring "larceny sense." He is learning the general methods of disposing of stolen goods and of fixing cases. He is building up a personal acquaintance with other thieves, and with lawyers, policemen, court officials, and fixers. This more general knowledge is seldom transmitted to the neophyte as formal verbal instructions but is assimilated by him without being recognized as instruction. However, he is quite as likely to be dropped from participation in further professional activities for failure to assimilate and use this more general culture as for failure to acquire the specific details of the techniques of theft.

As a result of this tutelage during the probationary period, he acquires the techniques of theft and consensus with the thieves. He is gradually admitted into differential association with thieves and given tentative status as a professional thief. This tentative status under probation becomes fixed as a definite recognition as a professional thief. Thereby he enters into the systematic organization which constitutes professional theft.

A person who wished to become a professional thief might conceivably acquire some knowledge of the techniques and of the codes by reading the descriptions of theft in newspapers, journals, and books. Either alone or in the company of two or three others he might attempt to use these techniques and to become a self-made professional thief. Even this, of course, would be tutelage. Aside from the fact that hardly ever is the technique of a theft described in such manner that it can be applied without personal assistance, this part of the skill of the thief is only a part of the requirements for a successful career. This person would not have that indefinite body of appreciations which is called "larceny sense," nor would he have the personal acquaintances with and confidence of fences, fixers, and policemen which are necessary for security in professional theft. He would quickly land in prison, where he would have a somewhat better opportunity to learn how to steal.

A person who is a professional thief may cease to be one. This would generally result from a violation of the codes of the profession or else from inefficiency due to age, fear, narcotic drugs, or drink. Because of either failure he would no longer be able to find companions with whom to work, would not be trusted by the fixer or by the policemen, and therefore he would not be able to secure immunity from punishment. He is no longer recognized as a professional thief, and therefore he can no longer be a professional thief. On the other hand, if he drops out of active stealing of his own volition and retains his abilities, he would continue to receive recognition as a professional thief. He would be similar to a physician who would be recognized as a physician after he ceased active practice.

IX

Leadership

1.

LEADER–FOLLOWER RELATIONS IN STREET CORNER SOCIETY *By William Foote Whyte*

The stable composition of the group and the lack of social assurance on the part of its members contribute toward producing a very high rate of social interaction within the group. The group structure is a product of these interactions.

Out of such interaction there arises a system of mutual obligations which is fundamental to group cohesion. If the men are to carry on their activities as a unit, there are many occasions when they must do favors for one another. The code of the corner boy requires him to help his friends when he can and to refrain from doing anything to harm them. When life in the group runs smoothly, the obligations binding members to one another are not explicitly recognized. Once Doc asked me to do something for him, and I said that he had done so much for me that I welcomed the chance to reciprocate. He objected: "I don't want it that way. I want you to do this for me because you're my friend. That's all."

It is only when the relationship breaks down that the underlying obligations are brought to light. While Alec and Frank were friends, I never heard either one of them discuss the services he was performing for the other, but when they had a falling-out over the group activities with the Aphrodite Club, each man complained to Doc that the other was not acting as he should in view of the services that had been done him. In other words, actions which were performed explicitly for the sake of friendship were revealed as being part of a system of mutual obligations.

Not all the corner boys live up to their obligations equally well, and this factor partly accounts for the differentiation in status among them. The man with a low status may violate his obligations without much change in his position. His fellows know that he has failed to discharge certain obligations in the past, and his position reflects his past performances. On the other hand, the leader is depended upon by all the members to meet his personal obligations. He cannot fail to do so without causing confusion and endangering his position.

The relationship of status to the system of mutual obligations is most clearly revealed when one observes the use of money. During the time that I knew a corner gang called the Millers, Sam Franco, the leader, was out of work except for an occasional odd job; yet, whenever he had a little money, he spent it on Joe and Chichi, his closest friends, who were next to him in the structure of the group. When Joe or Chichi had money, which was less frequent, they reciprocated. Sam frequently paid for two members who stood close to the bottom of his group and occasionally for

From W. F. Whyte, *Street Corner Society* (Chicago: University of Chicago Press, 1943). Copyright 1937 by the University of Chicago. Reprinted by permission of the author and the publisher.

others. The two men who held positions immediately below Joe and Chichi were considered very well off according to Cornerville standards. Sam said that he occasionally borrowed money from them, but never more than fifty cents at a time. Such loans he repaid at the earliest possible moment. There were four other members with lower positions in the group, who nearly always had more money than Sam. He did not recall ever having borrowed from them. He said that the only time he had obtained a substantial sum from anyone around his corner was when he borrowed eleven dollars from a friend who was the *leader* of another corner gang.

The situation was the same among the Nortons. Doc did not hesitate to accept money from Danny, but he avoided taking any from the followers.

The leader spends more money on his followers than they on him. The farther down in the structure one looks, the fewer are the financial relations which tend to obligate the leader to a follower. This does not mean that the leader has more money than others or even that he necessarily spends more—though he must always be a free spender. It means that the financial relations must be explained in social terms. Unconsciously, and in some cases consciously, the leader refrains from putting himself under obligations to those with low status in the group.

The leader is the focal point for the organization of his group. In his absence, the members of the gang are divided into a number of small groups. There is no common activity or general conversation. When the leader appears, the situation changes strikingly. The small units form into one large group. The conversation becomes general, and unified action frequently follows. The leader becomes the central point in the discussion. A follower starts to say something, pauses when he notices that the leader is not listening, and begins again when he has the leader's attention. When the leader leaves the group, unity gives way to the divisions that existed before his appearance.

The members do not feel that the gang is really gathered until the leader appears. They recognize an obligation to wait for him before beginning any group activity, and when he is present they expect him to make their decisions. One night when the Nortons had a bowling match, Long John had no money to put up as his side bet, and he agreed that Chick Morelli should bowl in his place. After the match Danny said to Doc, "You should never have put Chick in there."

Doc replied with some annoyance, "Listen, Danny, you yourself suggested that Chick should bowl instead of Long John."

Danny said, "I know, but you shouldn't have let it go."

The leader is the man who acts when the situation requires action. He is more resourceful than his followers. Past events have shown that his ideas were right. In this sense "right" simply means satisfactory to the members. He is the most independent in judgment. While his followers are undecided as to a course of action or upon the character of a newcomer, the leader makes up his mind.

When he gives his word to one of his boys, he keeps it. The followers look to him for advice and encouragement, and he receives more of their confidences than any other man. Consequently, he knows more about what is going on in the group than anyone else. Whenever there is a quarrel among the boys, he hears of it almost as soon as it happens. Each party to the quarrel may appeal to him to work out a solution; and, even when the men do not want to compose their differences, each one takes his side of the story to the leader at the first opportunity. A man's standing depends partly upon the leader's belief that he has been conducting himself properly.

The leader is respected for his fair-

mindedness. Whereas there may be hard feelings among some of the followers, the leader cannot bear a grudge against any man in the group. He has close friends (men who stand next to him in position), and he is indifferent to some of the members; but, if he is to retain his reputation for impartiality, he cannot allow personal animus to override his judgment.

The leader need not be the best baseball player, bowler, or fighter, but he must have some skill in whatever pursuits are of particular interest to the group. It is natural for him to promote activities in which he excels and to discourage those in which he is not skillful; and, in so far as he is thus able to influence the group, his competent performance is a natural consequence of his position. At the same time his performance supports his position.

The leader is better known and more respected outside his group than are any of his followers. His capacity for social movement is greater. One of the most important functions he performs is that of relating his group to other groups in the district. Whether the relationship is one of conflict, competition, or cooperation, he is expected to represent the interests of his fellows. The politician and the racketeer must deal with the leader in order to win the support of his followers. The leader's reputation outside the group tends to support his standing within the group, and his position in the group supports his reputation among outsiders.

The leader does not deal with his followers as an undifferentiated group. Doc explained:

> On any corner you would find not only a leader but probably a couple of lieutenants. They could be leaders themselves, but they let the man lead them. You would say, "They let him lead because they like the way he does things." Sure, but he leans upon them for his authority. Many times you find fellows on a corner that stay in the background until some situation comes up, and then they will take over and call the shots. Things like that can change fast sometimes.

The leader mobilizes the group by dealing first with his lieutenants. It was customary for the Millers to go bowling every Saturday night. One Saturday Sam had no money, so he set out to persuade the boys to do something else. Later he explained to me how he had been able to change the established social routine of the group. He said:

> I had to show the boys that it would be in their own interests to come with me—that each one of them would benefit. But I knew I only had to convince two of the fellows. If they start to do something, the other boys will say to themselves, "If Joe does it—or if Chichi does it—it must be a good thing for us too." I told Joe and Chichi what the idea was, and I got them to come with me. I didn't pay no attention to the others. When Joe and Chichi came, all the other boys came along too.

Another example from the Millers indicates what happens when the leader and his lieutenant disagree upon group policy. This is Sam talking again:

> One time we had a raffle to raise money to build a camp on Lake Blank [on property lent them by a local businessman]. We had collected $54, and Joe and I were holding the money. That week I knew Joe was playing pool, and he lost three or four dollars gambling. When Saturday came, I says to the boys, "Come on, we go out to Lake Blank. We're gonna build that camp on the hill."
>
> Right away, Joe said, "If yuz are gonna build the camp on the hill, I don't come. I want it on the other side."
>
> All the time I knew he had lost the money, and he was only making up excuses so he wouldn't have to let anybody know. Now the hill was really the place to build that camp. On the other side, the ground was swampy. That would have been a stupid place. But I knew that if I tried to make them go through with it now, the group would split up into two cliques. Some would come with me, and some would go with Joe. So I let the whole thing drop for a

while. After, I got Joe alone, and I says to him, "Joe, I know you lost some of that money, but that's all right. You can pay up when you have it and nobody will say nothin'. But, Joe, you know we shouldn't have the camp on the other side of the hill because the land is not good there. We should build it on the hill."

So he said, "All right," and we got all the boys together, and we went out to build the camp.

Disagreements are not always worked out so amicably. I once asked Doc and Sam to tell me who was the leader of a corner gang that was familiar to both of them. Sam commented:

> Doc picked out Carmen. He picked out the wrong man. I told him why he was wrong—that Dominic was the leader. But that very same night, there was almost a fight between the two of them, Dominic and Carmen. And now the group is split up into two gangs.

Doc said:

> Sometimes you can't pick out one leader. The leadership may be in doubt. Maybe there are a couple of boys vying for the honors. But you can find that out.

The leadership is changed not through an uprising of the bottom men but by a shift in the relations between men at the top of the structure. When a gang breaks into two parts, the explanation is to be found in a conflict between the leader and one of his former lieutenants.

This discussion should not give the impression that the leader is the only man who proposes a course of action. Other men frequently have ideas, but their suggestions must go through the proper channels if they are to go into effect.

In one meeting of the Cornerville S. and A., Dodo, who held a bottom ranking, proposed that he be allowed to handle the sale of beer in the clubrooms in return for 75 percent of the profits. Tony spoke in favor of Dodo's suggestion but proposed giving him a somewhat smaller percentage. Dodo agreed. Then Carlo proposed to have Dodo handle the beer in quite a different way, and Tony agreed. Tony made the motion, and it was carried unanimously. In this case Dodo's proposal was carried through, after substantial modifications, upon the actions of Tony and Carlo.

In another meeting Dodo said that he had two motions to make: that the club's funds be deposited in a bank and that no officer be allowed to serve two consecutive terms. Tony was not present at this time. Dom, the president, said that only one motion should be made at a time and that, furthermore, Dodo should not make any motions until there had been opportunity for discussion. Dodo agreed. Dom then commented that it would be foolish to deposit the funds when the club had so little to deposit. Carlo expressed his agreement. The meeting passed on to other things without action upon the first motion and without even a word of discussion on the second one. In the same meeting, Chris, who held a middle position, moved that a member must be in the club for a year before being allowed to hold office. Carlo said that it was a good idea, he seconded the motion, and it carried unanimously.

The actions of the leader can be characterized in terms of the origination of action in pair and set events. A pair event is one which takes place between two people. A set event is one in which one man originates action for two or more others. The leader frequently originates action for the group without waiting for the suggestions of his followers. A follower may originate action for the leader in a pair event, but he does not originate action for the leader and other followers at the same time—that is, he does not originate action in a set event which includes the leader. Of course, when the leader is not present, parts of the group are mobilized when men lower in the structure originate action in set events.

It is through observation of such set events when the top men are not present that it is possible to determine the relative positions of the men who are neither leaders nor lieutenants.

Each member of the corner gang has his own position in the gang structure. Although the positions may remain unchanged over long periods of time, they should not be conceived in static terms. To have a position means that the individual has a customary way of interacting with other members of the group. When the pattern of interactions changes, the positions change. The positions of the members are interdependent, and one position cannot change without causing some adjustments in the other positions. Since the group is organized around the men with the top positions, some of the men with low standing may change positions or drop out without upsetting the balance of the group. For example, when Lou Danaro and Fred Mackey stopped participating in the activities of the Nortons, those activities continued to be organized in much the same manner as before, but when Doc and Danny dropped out, the Nortons disintegrated, and the patterns of interaction had to be reorganized along different lines.

2.

LEADERSHIP AND SOCIOMETRIC CHOICE

By Helen Hall Jennings

Leadership phenomena "happen" in a human setting where people get into interaction on the basis of feeling, or *tele*. As Moreno demonstrates, the tele process of attraction and repulsion must be considered dependent upon *both* individuals in a relationship (even though the flow of feeling on the part of one individual toward another may be unknown by the second), since its direction is not random but depends upon the second person. The tele is not, therefore, viewed merely as the subjective, independent product of a single person.[1, 2]

The existence of tele relationships may be observed in terms of the expressions of choices on the part of individuals for each other. The choice process in a community occurs in a particularized fashion, along the lines of association for work or for living which are important to its population. These may be called *socio-groups*, since association is founded on a collective criterion. In *psyche-groups*, on the other hand, association, though equally real and important, is strictly a private matter; choices for members of such groups have a private, personalized basis. (I, as Mary Jones, feel toward you, as Sally Smith, thus and so. . . .) Choices within the socio-group have a collective, impersonal basis freer of the uniqueness of private personality aspects of response. (I, an unemployed woman holding membership in this union, feel toward you, as an employed woman also holding membership in this union, thus and so. . . .) The membership of a given psyche-group may also overlap and be a part of a socio-

Prepared by the author from data more fully reported in *Leadership and Isolation* (2d ed.; New York: Longmans, Green & Co., Inc., 1947).

[1] J. L. Moreno, *Who Shall Survive? A New Approach to the Problem of Human Interrelations* (Washington: Nervous and Mental Disease Monograph Series, No. 58, 1934).

[2] —— and H. H. Jennings, "Statistics of Social Configurations," *Sociometry*, 1938, I, 342–374.

group, but while functioning as socio-group members, the individuals apparently expect to relinquish roles appropriate in psyche-group membership.

By psyche-group is not meant, in sociological terms, the same thing as a face-to-face group or a primary group. There are such groups which never become either totally or in part what is here meant by the term psyche-group. The psyche-group is an interpersonal structure where the uniqueness of the individual as a personality is appreciated and allowed for, with varying degrees of spontaneous indulgence and affection. It is where one counts "altogether" as a person, not merely as an individual or as a member of a socio-group. In industry it springs up in the informal grouping that comes to exist as men work side by side. But in such psyche-group formations, as these develop inside socio-groups, the individual must consider his participation separately from his participation as a socio-group member. In a particular socio-group, only certain aspects of personality are appreciated by other members, as only certain aspects are appropriate to the tasks important in the specific socio-group life. Within the socio-group, there may be many members chosen by others as socio-group members who at the same time are rejected or unchosen by these same individuals in the latters' several psyche-groups.

It is the confusion between a socio-group and a psyche-group, or the lack of a clear-cut delineation between them, that has complicated the study of leadership phenomena. It is necessary to ask, Leadership in what respect? For whom? In what sort of group? What kind of psychological position in respect to the given population did the individual showing leadership have at the time he displayed it?

The Nature of the Investigation

The laboratory of the research was the New York State Training School for Girls, a closed community comprising over 400 girls committed by the Children's Courts of the state. The population represents a cross section of the socially and economically underprivileged in the state. To be admitted, the girl must be over 12 and under 16 years of age, and of normal intelligence.

The sociometric test, devised by Moreno,[3] discloses the feelings which individuals have toward each other in respect to membership in the groups in which they are at a given moment (ideally, all groups in which they are or could be). It is an *action* test. The criterion for choice must have explicit meaning for the subject, and offer him the specific opportunity to give information for reconstruction or retention of the situations which he is in. The results are put into operation to the optimal satisfaction of *all* subjects.[4, 5] Thus, in respect to the criterion of the group's formation, the psychological position of every member in the composition of the group structure is brought to light. By periodic testing changes in this structure can be traced, followed, and evaluated.

The following excerpt from the test instructions[6] illustrates the simplicity and directness of the approach used:

You will notice that your paper is divided into eight squares or boxes. In the first Yes box, marked "Live with," write the names

[3] Moreno, *op. cit.*

[4] *Ibid.*

[5] J. L. Moreno and H. H. Jennings, "Sociometric Control Studies of Grouping and Regrouping," *Sociometry Monographs*, No. 7, 1947.

[6] The complete protocol appears in H. H. Jennings, "A Sociometric Study of Emotional and Social Expansiveness," in R. G. Barker, J. S. Kounin and H. F. Wright (eds.), *Child Behavior and Development* (New York: McGraw-Hill Book Co., 1943).

of whatever girls there are anywhere on the campus or in your own house whom you would prefer to live with. In the No box marked "Live with," write the names of whatever girls there are anywhere on the campus or in your own house whom you would prefer not to live with. Do the same for the "Work with" boxes. Then, those you would prefer not to work with, place in the No box for work. Next, do your "Recreation or Leisure," and then your "Study or School" boxes, having in mind the same instructions. . . . The No boxes should contain only the names of those, *if any*, whom you definitely *don't* want in your group for the particular function or functions which it happens to be. The Yes boxes should contain only the names of those, *if any*, whom you definitely *do* want in your group for the particular function or functions which it happens to be. . . . Do the boxes in any other order than that suggested, if you prefer.

As previously employed, the sociometric test has been found to have an average reliability of .95, based on tests given on four successive weeks with five choices allowed on the criterion of tentmates in a summer camp.[7] At the college level, using also five choices and one criterion (membership in a discussion group), reliability coefficients ranging from .93 to .95 are reported from tests given on successive days.[8] These coefficients are based on the extent to which the subject is chosen by others on two or more occasions; they relate to the choices individuals *receive from others*. The more stringent comparison of the present study, by use of unlimited choices and a much longer retest interval, also reveals that even under these conditions there is a fairly high correlation. A comparison of the individual's self-consistency on separate occasions (his extent of expenditure of choices), with unlimited choices allowed, reveals that the individual shows a *characteristic repertoire* in choice expression for others.

The first tests were given during the last week of December 1937. The test population included all individuals (443) comprising the school population as of that date. Retests were given during the first week of September 1938, to all individuals (457) comprising the population at that time.

The method of analysis is a comparison of the number of *different* individuals reacted to positively (chosen) or negatively (rejected) by the subjects, with the number of different individuals reacting positively or negatively to the subjects. The data used in the analysis include all choices and rejections, either on the criterion of living or on the criterion of working, given to or received by 133 subjects present for both tests and occupying the same housing units on both occasions.

The problem of this report is to note the relation between behavior shown in interaction with others and the sociometric choice status of the individual. In order to examine behavior at different levels of choice status, "under-chosen" is defined as placing one standard deviation or more below the mean of the 133 subjects, "over-chosen" as placing one standard deviation or more above the mean, and "average-chosen" as placing approximately at the mean, in number of individuals choosing the subject. The number of under-chosen positions is 41 (19 on Test I and 22 on Test II); the number of over-chosen positions is 43 (22 on Test I and 21 on Test II). For purposes of comparison, 41 other positions placing nearest the mean on either test were selected.

Among other evidence which might be cited, the following is offered to show that high choice status is closely related to leadership in this community. Elections to a House Council were held in the fall of 1937. The individual receiving the

[7] W. I. Newstetter, M. Feldstein, and T. M. Newcomb, *Group Adjustment* (Cleveland: Western Reserve University, 1938).

[8] L. D. Zeleny, "Sociometry of Morale," *Am. Soc. Rev.*, 1938, IV, 799–808.

highest number of votes automatically became a member of the Community Council. The election was held under the supervision of the Club Director, and the ballots were closed. Four members were elected to the Council from each house. For the purpose of comparing membership in the Councils with rank in positive sociometric choices received from others, only data for the two members in each living unit receiving the highest and second highest number of votes were used. This comparison reveals that of the 20 such Council members (two from each of the ten housing units of this study), 18 or 90 percent place among the over-chosen, as here defined. The two Council members who do not so rank place just below this point. When allowance is made for the difference between being chosen from a community-wide base and being elected from the limited house population, it is evident that there is practically a one-to-one relationship between being elected to represent the house body in matters concerning the group and being chosen by community members on the sociometric criteria of living and/or working with them.

Observation of the personalities of the over-chosen subjects and study of the motivations given for choice provide the following clews to their choice status. Each over-chosen subject, to a greater or less extent:

- enlarges her social space, for interchange of ideas and activities;
- secures more and more responsibilities to be held by members in her work groups, her housing unit, and in the community as a whole;
- takes definite stands on what she considers right, and will "fight for it";
- aids the average-chosen individuals to broaden their conceptions of their potential capacities; shows faith in their abilities by taking it for granted that they can and want to contribute to their own development and to the life of the community;
- shows ability to establish rapport quickly and effectively with a wide range of other personalities and to win their confidence under varying circumstances;
- insists on an impersonal fairness, and succeeds in gaining respect for this level of interaction between members;
- raises the level of conduct of average members by demanding considerate behavior towards the less able (in the sense of less contributing) members;
- calls to account individuals who attempt to exclude participation by the relatively noncontributing or destructively contributing members; shows towards them protective behavior;
- exhibits anger and censuring almost exclusively towards only those members whom they consider "should know better," rather than towards all alike;
- controls the destiny of nonadjusting members (i.e., nonadjusting to the kind of regime instituted by such behaviors as listed above) by influencing other members to aid them, by blocking their possible satisfactions in nonadjusting behaviors, and by obliging other members to show respect for them in the community as a whole (e.g., not to carry unfavorable reports about them into the "networks" by telling out-group members of occurrences which would prejudice their standing in the community);
- causes others to feel that she aids them to meet their problems.

These behavior tendencies are confirmed and further expanded when housemother reports commending or complaining of the individual's behavior are examined in relation to the individual's choice-status. To the over-chosen, as compared with the average-chosen, are attributed three times as many incidences of initiatory behavior in making innovations without permission, twice as many incidences showing planning and organization, four times as many occasions showing initiative in starting new projects, over four times as frequent behavior exhibiting ingenuity in changing conduct of "problem" members or

fostering understanding between new members and others, and about twice as many rebellious behaviors. In these reports, the incidences for the under-chosen range from none to half as many as for the average-chosen.

To the under-chosen are attributed twelve times as many incidences of actively or passively interfering with the group's activities, as to the over-chosen, while such incidences are practically missing for the average-chosen. For the over-chosen are reported seven times as great an incidence of retaliatory behavior (among other over-chosen) as for average-chosen, and this behavior is rare for under-chosen. (Could this reflect less earnest competition to give occasion for such behavior among the latter members?)

On the other hand, the most often spontaneously given "praise" of the housemother by the over-chosen is for her listening to and considering the members' opinions in planning; such comment is made only a third as often by the average-chosen and not at all by the under-chosen.

Thus, it appears that the under-chosen show in common many varieties of behaviors the effect of which may tend to separate and draw individuals apart rather than to bring them together. The average-chosen show somewhat less than half as great an incidence of such behaviors, and about twice as great an incidence of behaviors the effect of which may tend to bring individuals into constructive relationship with one another. Further, in the very behaviors in which the average-chosen outrank the under-chosen, the over-chosen in turn are found to exceed the average citizen by approximately twice as great an incidence. And in those behaviors which "make new events happen" or "enlarge the kind and extent of activity" the over-chosen surpass the average citizen by over four times as great an incidence.

Just as isolated-from-choice positions and over-chosen positions are but two ends of one continuum, so behaviors when analyzed in relation to such choice-status of the individual (at the time he has the particular choice-status) appear as forming extremes on another continuum—at one end showing expressions disruptive (or "clogging") to the life of the group, and at the other, expressions conducive to an expanding life for the group. Sociometric choice for the individual thus appears to depend directly upon the nature of the group *in which he is to be functioned with.*

For the citizen who would earn choice, it appears as much a matter of what behaviors she rarely exhibits as of those she frequently shows which will determine what choice status she will hold in a socio-group for working or living. The average citizens of this study are not in any sense average in all constructive behaviors; the incidence of behaviors having a negative import for interpersonal exchange (in common work and living) appears to offset those having a positive import sufficiently, in the case of such individuals, to hold them down to an average-status.

Leadership and isolation appear, from this study, as phenomena which arise out of individual differences in interpersonal capacity for socio-group participation and as phenomena which are *indigenous to the specific milieu of the socio-group* or socio-groups *in which they are produced.*

Individuals who emerge as leaders in one socio-group may or may not emerge in a similar role in another community, or even in another socio-group in the same community. Likewise, individuals who classify as isolates in terms of choice from their associates in one socio-group in a given community may or may not change in choice-status in another socio-group in the same or another community.

Nevertheless, it is a reasonable hypothesis that when certain qualities have become pronounced and integrated in

the personality expression of the individual (such a quality as relatively great freedom from self-concern, sufficient to enable him to be concerned with matters affecting many others than himself), these are likely to persist, for they reflect a high level of emotional growth and maturity, and thus may be expected to act favorably upon his future relationships with persons in other socio-groups.

It would also appear, similarly, that certain qualities (such a quality as relative inability to observe and orient one's actions to the elements of a situation and the persons comprising it) may, unless outgrown, continue to act unfavorably upon the individual's future relationships.

The "why" of leadership appears, however, not explainable by any personality quality or constellation of traits. Some individuals are found who are as emotionally mature and as resourceful in ideas as the leader-individuals of this study, yet they were not allowed a role of leadership, nor chosen more than the average citizen in the community. The why of leadership appears to reside in the interpersonal contribution of which the individual becomes capable in a specific setting eliciting such contribution from him. Similarly, isolation appears as but the opposite extreme on this continuum of interpersonal sensitivity between the membership and the individual in the socio-group.

The over-chosen personalities showing certain behaviors in common differ markedly from one another in the "style" of these behaviors and the "style" they show *in contact with* specific other individuals. As persons, they are very unlike. (Similarly, isolates and near-isolates differ greatly from each other.) An analysis of their ways of behaving shows the leadership they exert to be definable as *a manner of interacting with others*—a manner which moves others in directions apparently desired by the latter, even though they may be doing little themselves towards attaining such directions. It is as if these individuals recognize and think more of the needs of others than others think of their own needs. The leader-individuals often take actions in behalf of others whom they do not choose and who do not know of the effort made for them. For example, three times as frequently the over-chosen individual, as compared with the average-chosen subject, made "unasked-for-suggestions to the psychologist for the welfare of others." Further, "visits to the psychology office in behalf of another individual (instead of self)" were made approximately seven times as often by the over-chosen individuals as by the average-chosen, and not at all by the under-chosen. Such actions by the average individuals almost invariably involve others whom they choose and thus may be inferred to be of more personalized interest to them.

While the varieties of styles of leadership (and of isolation) are many, nevertheless, a number of characteristics of leader-individuals stand out as common attributes. The social milieu is "improved" from the point of view of the membership through the efforts of each leader. Each widens the area of social participation for others (and indirectly his own social space) by his unique contribution to this milieu. Each leader seems to sense spontaneously when to censure and when to praise, apparently is intellectually and emotionally uncomfortable when others are "left out," and acts to foster tolerance on the part of one member towards another. At the same time they may give little quarter to other leaders. (By contrast, the isolates and near-isolates appear relatively "self-bound," behaving in ways which tend to show little capacity to identify with others or to bridge the gap between their own personalities and others as members of the socio-group.)

The leadership thus exhibited in the community by various members appears,

in each instance, to reflect a "style" of leadership—a particularized way of behaving, derived from the personality attributes of the individual in an over-chosen position. Actually, however, the success of several "types" of personality in achieving leadership status through their ways of behaving while a member of the population appears to depend, in turn, upon the fact that the population itself is comprised of so great a variety of personalities that no one personality has a constellation of attributes necessary to win an exclusive position in esteem and influence necessary to a role of exclusive leadership. Each leader makes a contribution *to some parts* of the membership which all members do not equally want or need. There may be very little overlap between the individuals who support one leader and those who support another.

Leadership appears as a process in which no one individual has a major role but in which relatively many share. The superior capacity which one individual may have to recognize and respond to the needs of others does not show itself as a generalized capacity which may relate him to all other individuals. It appears in the special sensitivity between the individual and *specific* other persons, resulting in interaction between them.

The psychological structure resulting from choice behavior on the part of the members of the test-community, this research finds, may be most accurately envisioned as *an equilibrium in flux.* The movements which take place continually within it are compensatory movements which do not disturb the total structure viewed as a totality. The total structure tends to retain its characteristics from one time to another *even though the respective positions of its carriers* (the members of the population) alter from time to time. The shifts "upward" and "downward" that are shown in the choice-status of the individuals in the population are, so to speak, bound to occur since interaction cannot be static. The reasons for this stability and this slowness of flux within the structure appear in the behaviors distinguishing choice-status. A social process of interaction *by and towards* the individuals respectively isolated or lifted to leadership is found to form the very basis of the isolation and of the leadership. Personality *per se,* in so far as it is reflected in social structure, is the capacity for interplay with other personalities, for responding to and being responded to, in a reciprocal situation, in which the individual is in common with other individuals.

3.

HITLER AND THE NAZI AUTHORITARIAN CHARACTER STRUCTURE

By Erich Fromm

Before going on with the discussion of the authoritarian character, the term "authority" needs some clarification. Authority is not a quality one person "has," in the sense that he has property or physical qualities. Authority refers to an interpersonal relation in which one person looks upon another as somebody superior to him. But there is a fundamental difference between a kind of superiority-inferiority relation which can be called rational authority and one

From *Escape from Freedom* (New York: Farrar & Rinehart, 1941). Copyright, 1941, by Erich Fromm. Reprinted by permission of the author and Rinehart & Company, Inc., publishers.

which may be described as inhibiting authority.

An example will show what I have in mind. The relationship between teacher and student and that between slave owner and slave are both based on the superiority of the one over the other. The interests of teacher and pupil lie in the same direction. The teacher is satisfied if he succeeds in furthering the pupil; if he has failed to do so, the failure is his and the pupil's. The slave owner, on the other hand, wants to exploit the slave as much as possible; the more he gets out of him, the more he is satisfied. At the same time, the slave seeks to defend as best he can his claims for a minimum of happiness. These interests are definitely antagonistic, as what is of advantage to the one is detrimental to the other. The superiority has a different function in both cases: in the first, it is the condition for the helping of the person subjected to the authority; in the second, it is the condition for his exploitation.

The dynamics of authority in these two types are different too: the more the student learns, the less wide is the gap between him and the teacher. He becomes more and more like the teacher himself. In other words, the authority relationship tends to dissolve itself. But when the superiority serves as a basis for exploitation, the distance becomes intensified through its long duration.

The psychological situation is different in each of these authority situations. In the first, elements of love, admiration, or gratitude are prevalent. The authority is at the same time an example with which one wants to identify one's self partially or totally. In the second situation, resentment or hostility will arise against the exploiter, subordination to whom is against one's own interests. But often, as in the case of a slave, this hatred would only lead to conflicts which would subject the slave to suffering without a chance of winning. Therefore, the tendency will usually be to repress the feeling of hatred and sometimes even to replace it by a feeling of blind admiration. This has two functions: (1) to remove the painful and dangerous feeling of hatred, and (2) to soften the feeling of humiliation. If the person who rules over me is so wonderful or perfect, then I should not be ashamed of obeying him. I cannot be his equal because he is so much stronger, wiser, better, and so on, than I am. As a result, in the inhibiting kind of authority, the element either of hatred or of irrational overestimation and admiration of the authority will tend to increase. In the rational kind of authority, it will tend to decrease in direct proportion to the degree in which the person subjected to the authority becomes stronger and thereby more similar to the authority.

The difference between rational and inhibiting authority is only a relative one. Even in the relationship between slave and master there are elements of advantage for the slave. He gets a minimum of food and protection which at least enables him to work for his master. On the other hand, it is only in an ideal relationship between teacher and student that we find a complete lack of antagonism of interests. There are many gradations between these two extreme cases, as in the relationship of a factory worker with his boss, or a farmer's son with his father, or a *hausfrau* with her husband. Nevertheless, although in reality two types of authority are blended, they are essentially different, and an analysis of a concrete authority situation must always determine the specific weight of each kind of authority.

Authority does not have to be a person or institution which says: you have to do this, or you are not allowed to do that. While this kind of authority may be called external authority, authority can appear as internal authority, under the name of duty, conscience, or superego. As a matter of fact, the development of modern thinking, from Protestantism

to Kant's philosophy, can be characterized as the substitution of internalized authority for an external one. With the political victories of the rising middle class, external authority lost prestige and man's own conscience assumed the place which external authority once had held. This change appeared to many as the victory of freedom. To submit to orders from the outside (at least in spiritual matters) appeared to be unworthy of a free man; but the conquest of his natural inclinations, and the establishment of the domination of one part of the individual, his nature, by another, his reason, will or conscience, seemed to be the very essence of freedom. Analysis shows that conscience rules with a harshness as great as external authorities, and furthermore that frequently the contents of the orders issued by man's conscience are ultimately not governed by demands of the individual self but by social demands which have assumed the dignity of ethical norms. The rulership of conscience can be even harsher than that of external authorities, since the individual feels its orders to be his own; how can he rebel against himself?

In recent decades "conscience" has lost much of its significance. It seems as though neither external nor internal authorities play any prominent role in the individual's life. Everybody is completely "free," if only he does not interfere with other people's legitimate claims. But what we find is rather that instead of disappearing, authority has made itself invisible. Instead of overt authority, "*anonymous*" *authority* reigns. It is disguised as common sense, science, psychic health, normality, public opinion. It does not demand anything except the self-evident. It seems to use no pressure but only mild persuasion. Whether a mother says to her daughter, "I know you will not like to go out with that boy," or an advertisement suggests, "Smoke this brand of cigarettes—you will like their coolness," it is the same atmosphere of subtle suggestion which actually pervades our whole social life. Anonymous authority is more effective than overt authority, since one never suspects that there is any order which one is expected to follow. In external authority it is clear that there is an order and who gives it; one can fight against the authority, and in this fight personal independence and moral courage can develop. But whereas in internalized authority the command, though an internal one, remains visible, in anonymous authority both command and commander have become invisible. It is like being fired at by an invisible enemy. There is nobody and nothing to fight back against.

Returning now to the discussion of the authoritarian character, the most important feature to be mentioned is its attitude towards power. For the authoritarian character there exist, so to speak, two sexes: the powerful ones and the powerless ones. His love, admiration and readiness for submission are automatically aroused by power, whether of a person or of an institution. Power fascinates him not for any values for which a specific power may stand, but just because it is power. Just as his "love" is automatically aroused by power, so powerless people or institutions automatically arouse his contempt. The very sight of a powerless person makes him want to attack, dominate, humiliate him. Whereas a different kind of character is appalled by the idea of attacking one who is helpless, the authoritarian character feels the more aroused the more helpless his object has become.

There is one feature of the authoritarian character which has misled many observers: a tendency to defy authority and to resent any kind of influence from "above." Sometimes this defiance overshadows the whole picture and the submissive tendencies are in the background. This type of person will constantly rebel against any kind of authority, even one that actually furthers his interests and

has no elements of suppression. Sometimes the attitude toward authority is divided. Such persons might fight against one set of authorities, especially if they are disappointed by its lack of power, and at the same time or later on submit to another set of authorities which through greater power or greater promises seems to fulfill their masochistic longings. Finally, there is a type in which the rebellious tendencies are completely repressed and come to the surface only when conscious control is weakened; or they can be recognized *ex posteriori*, in the hatred that arises against an authority when its power is weakened and when it begins to totter. In persons of the first type in whom the rebellious attitude is in the center of the picture, one is easily led to believe that their character structure is just the opposite to that of the submissive masochistic type. It appears as if they are persons who oppose every authority on the basis of an extreme degree of independence. They look like persons who, on the basis of their inner strength and integrity, fight those forces that block their freedom and independence. However, the authoritarian character's fight against authority is essentially defiance. It is an attempt to assert himself and to overcome his own feeling of powerlessness by fighting authority, although the longing for submission remains present, whether consciously or unconsciously. The authoritarian character is never a "revolutionary"; I should like to call him a "rebel." There are many individuals and political movements that are puzzling to the superficial observer because of what seems to be an inexplicable change from "radicalism" to extreme authoritarianism. Psychologically, those people are the typical "rebels."

The attitude of the authoritarian character toward life, his whole philosophy, is determined by his emotional strivings. The authoritarian character loves those conditions that limit human freedom, he loves being submitted to fate. It depends on his social position what "fate" means to him. For a soldier it may mean the will or whim of his superior, to which he gladly submits. For the small businessman the economic laws are his fate. Crisis and prosperity to him are not social phenomena which might be changed by human activity, but the expression of a higher power to which one has to submit. For those on the top of the pyramid it is basically not different. The difference lies only in the size and generality of the power to which one submits, not in the feeling of dependence as such.

Not only the forces that determine one's own life directly but also those that seem to determine life in general are felt as unchangeable fate. It is fate that there are wars and that one part of mankind has to be ruled by another. It is fate that the amount of suffering can never be less than it always has been. Fate may be rationalized philosophically as "natural law" or as "destiny of man," religiously as the "will of the Lord," ethically as "duty"—for the authoritarian character it is always a higher power outside of the individual, toward which the individual can do nothing but submit. The authoritarian character worships the past. What has been, will eternally be. To wish or to work for something that has not yet been before is crime or madness. The miracle of creation—and creation is always a miracle—is outside of his range of emotional experience.

Schleiermacher's definition of religious experience as experience of absolute dependence is the definition of the masochistic experience in general; a special role in this feeling of dependence is played by sin. The concept of original sin, which weighs upon all future generations, is characteristic of the authoritarian experience. Moral like any other kind of human failure becomes a fate which man can never escape. Whoever has once sinned is chained eternally to

his sin with iron shackles. Man's own doing becomes the power that rules over him and never lets him free. The consequences of guilt can be softened by atonement, but atonement can never do away with the guilt.[1] Isaiah's words, "Though your sins be as scarlet, they shall be as white as snow," express the very opposite of authoritarian philosophy.

The feature common to all authoritarian thinking is the conviction that life is determined by forces outside of man's own self, his interest, his wishes. The only possible happiness lies in the submission to these forces. The powerlessness of man is the leitmotif of masochistic philosophy. One of the ideological fathers of Nazism, Moeller van der Bruck, expressed this feeling very clearly. He writes: "The conservative believes rather in catastrophe, in the powerlessness of man to avoid it, in its necessity, and in the terrible disappointment of the seduced optimist." [2] In Hitler's writing we shall see more illustrations of the same spirit.

The authoritarian character does not lack activity, courage, or belief. But these qualities for him mean something entirely different from what they mean for the person who does not long for submission. For the authoritarian character activity is rooted in a basic feeling of powerlessness which it tends to overcome. Activity in this sense means to act in the name of something higher than one's own self. It is possible in the name of God, the past, nature, or duty, but never in the name of the future, of the unborn, of what has no power, or of life as such. The authoritarian character wins his strength to act through his leaning on superior power. This power is never assailable or changeable. For him lack of power is always an unmistakable sign of guilt and inferiority, and if the authority in which he believes shows signs of weakness, his love and respect change into contempt and hatred. He lacks an "offensive potency" which can attack established power without first feeling subservient to another and stronger power.

The courage of the authoritarian character is essentially a courage to suffer what fate or its personal representative or "leader" may have destined him for. To suffer without complaining is his highest virtue—not the courage of trying to end suffering or at least to diminish it. Not to change fate, but to submit to it, is the heroism of the authoritarian character.

He has belief in authority as long as it is strong and commanding. His belief is rooted ultimately in his doubts and constitutes an attempt to compensate them. But he has no faith, if we mean by faith the secure confidence in the realization of what now exists only as a potentiality. Authoritarian philosophy is essentially relativistic and nihilistic, in spite of the fact that it often claims so violently to have conquered relativism and in spite of its show of activity. It is rooted in extreme desperation, in the complete lack of faith, and it leads to nihilism, to the denial of life.[3]

In authoritarian philosophy the concept of equality does not exist. The authoritarian character may sometimes use the word equality either conventionally or because it suits his purposes. But it has no real meaning or weight for him, since it concerns something outside the reach of his emotional experience. For him the world is composed of people with

[1] Victor Hugo gave a most telling expression to the idea of inescapability of guilt in the character of Javert in *Les Misérables*.

[2] Moeller van der Bruck, *Das Dritte Reich* (Hamburg: Hanseatische Verlag-anstalt, 1931), pp. 223, 224.

[3] Rauschning has given a good description of the nihilistic character of fascism in *The Revolution of Nihilism* (E. W. Dickes, tr.; Chicago: Alliance Book Corporation, 1939).

power and those without it, of superior ones and inferior ones. On the basis of his sado-masochistic strivings, he experiences only domination or submission, but never solidarity. Differences, whether of sex or race, to him are necessary signs of superiority or inferiority. A difference which does not have this connotation is unthinkable to him.

The description of the sado-masochistic strivings and the authoritarian character refers to the more extreme forms of helplessness and the correspondingly more extreme forms of escaping it by the symbiotic relationship to the object of worship or domination.

Although these sado-masochistic strivings are common, we can consider only certain individuals and social groups as typically sado-masochistic. There is, however, a milder form of dependency which is so general in our culture that only in exceptional cases does it seem to be lacking. This dependency does not have the dangerous and passionate qualities of sado-masochism, but it is important enough not to be omitted from our discussion here.

I am referring to the kind of persons whose whole life is in a subtle way related to some power outside themselves.[4] There is nothing they do, feel, or think which is not somehow related to this power. They expect protection from "him," wish to be taken care of by "him," make "him" also responsible for whatever may be the outcome of their own actions. Often the fact of his dependence is something the person is not aware of at all. Even if there is a dim awareness of some dependency, the person or power on whom he is dependent often remains nebulous. There is no definite image linked up with that power. Its essential quality is to represent a certain function, namely to protect, help, and develop the individual, to be with him and never leave him alone. The "X" which has these qualities may be called the *magic helper*. Frequently, of course, the "magic helper" is personified: he is conceived of as God, as a principle, or as real persons such as one's parent, husband, wife, or superior. It is important to recognize that when real persons assume the role of the magic helper they are endowed with magic qualities, and the significance they have results from their being the personification of the magic helper. This process of personification of the magic helper is to be observed frequently in what is called "falling in love." A person with that kind of relatedness to the magic helper seeks to find him in flesh and blood. For some reason or other—often supported by sexual desires—a certain other person assumes for him those magic qualities, and he makes that person into the being to whom and on whom his whole life becomes related and dependent. The fact that the other person frequently does the same with the first one does not alter the picture. It only helps to strengthen the impression that this relationship is one of "real love."

This need for the magic helper can be studied under experiment-like conditions in the psychoanalytic procedure. Often the person who is analyzed forms a deep attachment to the psychoanalyst, and his or her whole life, all actions, thoughts, and feeling, are related to the analyst. Consciously or unconsciously the analysand asks himself: would he (the analyst) be pleased with this, displeased with that, agree to this, scold me for that? In love relationships the fact that one chooses this or that person as a partner serves as a proof that this particular person is loved just because he is "he"; but in the psychoanalytic situation this illusion cannot be upheld. The most different kinds of persons develop

[4] In this connection, cf. Karen Horney, *New Ways in Psychoanalysis* (New York: W. W. Norton & Co., 1939).

the same feelings toward the most different kinds of psychoanalysts. The relationship looks like love; it is often accompanied by sexual desires; yet it is essentially a relationship to the personified magic helper, a role which obviously a psychoanalyst, like certain other persons who have some authority (physicians, ministers, teachers), is able to play satisfactorily for the person who is seeking the personified magic helper.

The reasons why a person is bound to a magic helper are, in principle, the same that we have found at the root of the symbiotic drives: an inability to stand alone and to fully express his own individual potentialities. In the sado-masochistic strivings this inability leads to a tendency to get rid of one's individual self through dependency on the magic helper—in the milder form of dependency I am discussing now it only leads to a wish for guidance and protection. The intensity of the relatedness to the magic helper is in reverse proportion to the ability to express spontaneously one's own intellectual, emotional, and sensuous potentialities. In other words, one hopes to get everything one expects from life, from the magic helper, instead of by one's own actions. The more this is the case, the more is the center of life shifted from one's own person to the magic helper and his personifications. The question is then no longer how to live oneself, but how to manipulate "him" in order not to lose him and how to make him do what one wants, even to make him responsible for what one is responsible oneself.

In the more extreme cases, a person's whole life consists almost entirely in the attempt to manipulate "him"; people differ in the means which they use; for some obedience, for some "goodness," for others suffering is the main means of manipulation. We see, then, that there is no feeling, thought, or emotion that is not at least colored by the need to manipulate "him"; in other words, that no psychic act is really spontaneous or free. This dependency, springing from and at the same time leading to a blockage of spontaneity, not only gives a certain amount of security but also results in a feeling of weakness and bondage. As far as this is the case, the very person who is dependent on the magic helper also feels, although often unconsciously, enslaved by "him" and, to a greater or lesser degree, rebels against "him." This rebelliousness against the very person on whom one has put one's hopes for security and happiness creates new conflicts. It has to be suppressed if one is not to lose "him," but the underlying antagonism constantly threatens the security sought for in the relationship.

If the magic helper is personified in an actual person, the disappointment that follows when he falls short of what one is expecting from this person—and since the expectation is an illusory one, any actual person is inevitably disappointing—in addition to the resentment resulting from one's own enslavement to that person, leads to continuous conflicts. These sometimes end only with separation, which is usually followed by the choice of another object who is expected to fulfill all hopes connected with the magic helper. If this relationship proves to be a failure too, it may be broken up again or the person involved may decide that this is just "life," and resign. What he does not recognize is the fact that his failure is not essentially the result of his not having chosen the right magic person; it is the direct result of having tried to obtain by the manipulation of a magic force that which only the individual can achieve himself by his own spontaneous activity.

The phenomenon of life-long dependency on an object outside of oneself has been seen by Freud. He has interpreted it as the continuation of the early, essentially sexual, bonds with the parents throughout life. As a matter of fact, the

phenomenon has impressed him so much that he has asserted that the Oedipus complex is the nucleus of all neuroses, and in the successful overcoming of the Oedipus complex he has seen the main problem of normal development.

In seeing the Oedipus complex as the central phenomenon of psychology Freud has made one of the most important discoveries in psychology. But he has failed in its adequate interpretation; for although the phenomenon of sexual attraction between parents and children does exist and although conflicts arising from it sometimes constitute part of the neurotic development, neither the sexual attraction nor the resulting conflicts are the essential in the fixation of children on their parents. As long as the infant is small it is quite naturally dependent on the parents, but this dependence does not necessarily imply a restriction of the child's own spontaneity. However, when the parents, acting as the agents of society, start to suppress the child's spontaneity and independence, the growing child feels more and more unable to stand on its own feet; it therefore seeks for the magic helper and often makes the parents the personification of "him." Later on, the individual transfers these feelings to somebody else, for instance, to a teacher, a husband, or a psychoanalyst. Again, the need for being related to such a symbol of authority is not caused by the continuation of the original sexual attraction to one of the parents but by the thwarting of the child's expansiveness and spontaneity and by the consequent anxiety.

What we can observe at the kernel of every neurosis, as well as of normal development, is the struggle for freedom and independence. For many normal persons this struggle has ended in a complete giving up of their individual selves, so that they are thus well adapted and considered to be normal. The neurotic person is the one who has not given up fighting against complete submission, but who, at the same time, has remained bound to the figure of the magic helper, whatever form or shape "he" may have assumed. His neurosis is always to be understood as an attempt, and essentially an unsuccessful one, to solve the conflict between that basic dependency and the quest for freedom.

In the following pages we shall try to show that Hitler's personality, his teachings, and the Nazi system express an extreme form of the character structure which we have called "authoritarian" and that by this very fact he made a powerful appeal to those parts of the population which were—more or less—of the same character structure.

Hitler's autobiography is as good an illustration of the authoritarian character as any, and since in addition to that it is the most representative document of Nazi literature I shall use it as the main source for analyzing the psychology of Nazism.

The essence of the authoritarian character has been described as the simultaneous presence of sadistic and masochistic drives. Sadism was understood as aiming at unrestricted power over another person more or less mixed with destructiveness; masochism as aiming at dissolving oneself in an overwhelmingly strong power and participating in its strength and glory. Both the sadistic and the masochistic trends are caused by the inability of the isolated individual to stand alone and his need for a symbiotic relationship that overcomes this aloneness.

The *sadistic craving for power* finds manifold expressions in *Mein Kampf*. It is characteristic of Hitler's relationship to the German masses whom he despises and "loves" in the typically sadistic manner, as well as to his political enemies towards whom he evidences those destructive elements that are an important component of his sadism. He speaks of the satisfaction the masses have in domination.

What they want is the victory of the stronger and the annihilation or the unconditional surrender of the weaker.

Like a woman, . . . who will submit to the strong man rather than dominate the weakling, thus the masses love the ruler rather than the suppliant, and inwardly they are far more satisfied by a doctrine which tolerates no rival than by the grant of liberal freedom; they often feel at a loss what to do with it, and even easily feel themselves deserted. They neither realize the impudence with which they are spiritually terrorized, nor the outrageous curtailment of their human liberties for in no way does the delusion of this doctrine dawn on them.

He describes the breaking of the will of the audience by the superior strength of the speaker as the essential factor in propaganda. He does not even hesitate to admit that physical tiredness of his audience is a most welcome condition for their suggestibility. Discussing the question which hour of the day is most suited for political mass meetings he says:

It seems that in the morning and even during the day men's will power revolts with highest energy against an attempt at being forced under another's will and another's opinion. In the evening, however, they succumb more easily to the dominating force of a stronger will. For truly every such meeting presents a wrestling match between two opposed forces. The superior oratorical talent of a domineering apostolic nature will now succeed more easily in winning for the new will people who themselves have in turn experienced a weakening of their force of resistance in the most natural way, than people who still have full command of the energies of their minds and their will power.

Hitler himself is very much aware of the conditions which make for the longing for submission and gives an excellent description of the situation of the individual attending a mass meeting.

The mass meeting is necessary if only for the reason that in it the individual, who in becoming an adherent of a new movement feels lonely and is easily seized with the fear of being alone, receives for the first time the pictures of a greater community, something that has a strengthening and encouraging effect on most people. . . . If he steps for the first time out of his small workshop or out of the big enterprise, in which he feels very small, into the mass meeting and is now surrounded by thousands and thousands of people with the same conviction . . . he himself succumbs to the magic influence of what we call mass suggestion.

Goebbels describes the masses in the same vein. "People want nothing at all, except to be governed decently," he writes in his novel *Michael*.[5] They are for him, "nothing more than the stone is for the sculptor. Leader and masses is as little a problem as painter and color."

In another book Goebbels gives an accurate description of the dependence of the sadistic person on his objects; how weak and empty he feels unless he has power over somebody and how this power gives him new strength. This is Goebbels' account of what is going on in himself:

Sometimes one is gripped by a deep depression. One can only overcome it, if one is in front of the masses again. The people are the fountain of our power.[6]

A telling account of that particular kind of power over people which the Nazis call leadership is given by the leader of the German labor front, Ley. In discussing the qualities required in a Nazi leader and the aims of education of leaders, he writes:

We want to know whether these men have the will to lead, to be masters, in one word, to rule. . . . We want to rule and enjoy it. . . . We shall teach these men to ride horseback . . . in order to give them the feeling of absolute domination over a living being.[7]

[5] Joseph Goebbels, *Michael* (Munich: F. Eher, 1936), p. 57.

[6] Joseph Goebbels, *Vom Kaiserhof zur Reichskanzlei* (Munich: F. Eher, 1934), p. 120.

[7] Ley, *Der Weg zur Ordensburg*, Sonderdruck des Reichsorganisationsleiters der NSDAP für das Führercorps der Partei; quoted from Konrad Heiden, *Ein Mann gegen Europa* (Zürich, 1937).

The same emphasis on power is also present in Hitler's formulation of the aims of education. He says that the pupil's "entire education and development has to be directed at giving him the conviction of being absolutely superior to the others." [8]

The fact that somewhere else he declares that a boy should be taught to suffer injustice without rebelling will no longer strike the reader—or so I hope—as strange. This contradiction is the typical one for the sado-masochistic ambivalence between the craving for power and for submission.

The wish for power over the masses is what drives the members of the "elite," the Nazi leaders. As the quotations above show, this wish for power is sometimes revealed with an almost astonishing frankness. Sometimes it is put in less offensive forms by emphasizing that to be ruled is just what the masses wish. Sometimes the necessity to flatter the masses and therefore to hide the cynical contempt for them leads to tricks like the following: In speaking of the instinct of self-preservation, which for Hitler as we shall see later is more or less identical with the drive for power, he says that with the Aryan the instinct for self-preservation has reached the most noble form "because he willingly subjects his own ego to the life of the community and, if the hour should require it, he also sacrifices it."

While the "leaders" are the ones to enjoy power in the first place, the masses are by no means deprived of sadistic satisfaction. Racial and political minorities within Germany, and eventually other nations which are described as weak or decaying, are the objects of sadism upon which the masses are fed. While Hitler and his bureaucracy enjoy the power over the German masses, these masses themselves are taught to enjoy power over other nations and to be driven by the passion for domination of the world.

Hitler does not hesitate to express the wish for world domination as his or his party's aim. Making fun of pacifism, he says:

> Indeed, the pacifist-humane idea is perhaps quite good whenever the man of the highest standard has previously conquered and subjected the world to a degree that makes him the only master of this globe.

Again he says:

> A state which in the epoch of race poisoning dedicates itself to the cherishing of its best racial elements, must some day be master of the world.

Usually Hitler tries to rationalize and justify his wish for power. The main justifications are the following: his domination of other peoples is for their own good and for the good of the culture of the world; the wish for power is rooted in the eternal laws of nature and he recognizes and follows only these laws; he himself acts under the command of a higher power—God, Fate, History, Nature; his attempts for domination are only a defense against the attempts of others to dominate him and the German people. He wants only peace and freedom.

An example of the first kind of rationalization is the following paragraph from *Mein Kampf:*

> If, in its historical development, the German people had possessed this group unity as it was enjoyed by other peoples, then the German Reich would today probably be the mistress of this globe.

German domination of the world could lead, Hitler assumes, to a

> peace, supported not by the palm branches of tearful pacifist professional female mourners, but founded by the victorious sword of a people of overlords which puts the world into the service of a higher culture.

[8] Hitler, *Mein Kampf*, p. 618.

In recent years his assurances that his aim is not only the welfare of Germany but that his actions serve the best interests of civilization in general have become well-known to every newspaper reader.

The second rationalization, that his wish for power is rooted in the laws of nature, is more than a mere rationalization; it also springs from the wish for submission to a power outside of oneself, as expressed particularly in Hitler's crude popularization of Darwinism. In "the instinct of preserving the species," Hitler sees "the first cause of the formation of human communities."

This instinct of self-preservation leads to the fight of the stronger for the domination of the weaker and economically, eventually, to the survival of the fittest. The identification of the instinct of self-preservation with power over others finds a particularly striking expression in Hitler's assumption that "the first culture of mankind certainly depended less on the tamed animal, but rather on the use of inferior people." He projects his own sadism upon Nature who is "the cruel Queen of all Wisdom," and her law of perservation is "bound to the brazen law of necessity and of the right of the victory of the best and the strongest in this world."

It is interesting to observe that in connection with this crude Darwinism the "socialist" Hitler champions the liberal principles of unrestricted competition. In a polemic against cooperation between different nationalistic groups he says:

> By such a combination the free play of energies is tied up, the struggle for choosing the best is stopped, and accordingly the necessary and final victory of the healthier and stronger man is prevented forever.

Elsewhere he speaks of the free play of energies as the wisdom of life.

To be sure, Darwin's theory as such was not an expression of the feelings of a sado-masochistic character. On the contrary, for many of its adherents it appealed to the hope of a further evolution of mankind to higher stages of culture. For Hitler, however, it was an expression of and simultaneously a justification for his own sadism. He reveals quite naïvely the psychological significance which the Darwinian theory had for him. When he lived in Munich, still an unknown man, he used to awake at 5 o'clock in the morning. He had "gotten into the habit of throwing pieces of bread or hard crusts to the little mice which spent their time in the small room, and then of watching these droll little animals romp and scuffle for these few delicacies." This "game" was the Darwinian "struggle for life" on a small scale. For Hitler it was the petty bourgeois substitute for the circuses of the Roman Caesars, and a preliminary for the historical circuses he was to produce.

The last rationalization for his sadism, his justification of it as a defense against attacks of others, finds manifold expressions in Hitler's writings. He and the German people are always the ones who are innocent and the enemies are sadistic brutes. A great deal of this propaganda consists of deliberate, conscious lies. Partly, however, it has the same emotional "sincerity" which paranoid accusations have. These accusations always have the function of a defense against being found out with regard to one's own sadism or destructiveness. They run according to the formula: It is you who have sadistic intention. Therefore I am innocent. With Hitler this defensive mechanism is irrational to the extreme, since he accuses his enemies of the very things he quite frankly admits to be his own aims. Thus he accuses the Jews, the Communists, and the French of the very things that he says are the most legitimate aims of his own actions. He scarcely bothers to cover this contradiction by rationalizations. He accuses the Jews of bringing the French African troops to the Rhine with the intention

to destroy, by the bastardization which would necessarily set in, the white race and thus "in turn to rise personally to the position of master." Hitler must have detected the contradiction of condemning others for that which he claims to be the most noble aim of his race, and he tries to rationalize the contradiction by saying of the Jews that *their* instinct for self-preservation lacks the idealistic character which is to be found in the Aryan drive for mastery.

The same accusations are used against the French. He accuses them of wanting to strangle Germany and to rob it of its strength. While this accusation is used as an argument for the necessity of destroying "the French drive for European hegemony," he confesses that he would have acted like Clemenceau had he been in his place.

The Communists are accused of brutality and the success of Marxism is attributed to its political will and activistic brutality. At the same time, however, Hitler declares:

> What Germany was lacking was a close cooperation of brutal power and ingenious political intention.

The Czech crisis in 1938 and this present war brought many examples of the same kind. There was no act of Nazi oppression which was not explained as a defense against oppression by others. One can assume that these accusations were mere falsifications and have not the paranoid "sincerity" which those against the Jews and the French might have been colored by. They still have a definite propaganda value, and part of the population, in particular the lower middle class which is receptive to these paranoid accusations on account of its own character structure, believed them.

Hitler's contempt for the powerless ones becomes particularly apparent when he speaks of people whose political aims —the fight for national freedom—were similar to those which he himself professed to have. Perhaps nowhere is the insincerity of Hitler's interest in national freedom more blatant than in his scorn for powerless revolutionaries. Thus he speaks in an ironical and contemptuous manner of the little group of National Socialists he had originally joined in Munich. This was his impression of the first meeting he went to.

> Terrible, terrible; this was club-making of the worst kind and manner. And this club I now was to join? Then the new memberships were discussed, that means, my being caught.

He calls them "a ridiculous small foundation," the only advantage of which was to offer "the chance for real personal activity." Hitler says that he would never have joined one of the existing big parties and this attitude is very characteristic of him. He had to start in a group which he felt to be inferior and weak. His initiative and courage would not have been stimulated in a constellation where he had to fight existing power or to compete with his equals.

He shows the same contempt for the powerless ones in what he writes about Indian revolutionaries. The same man who has used the slogan of national freedom for his own purposes more than anybody else has nothing but contempt for such revolutionists who had no power and who dared to attack the powerful British Empire. He remembers, Hitler says,

> some Asiatic fakir or other, perhaps, for all I care, some real Indian "fighters for freedom," who were then running around Europe, contrived to stuff even otherwise quite intelligent people with the fixed idea that the British Empire, whose keystone is in India, was on the verge of collapse right there. . . . Indian rebels will, however, never achieve this. . . . It is simply an impossibility for a coalition of cripples to storm a powerful State. . . . I may not, simply because of my knowledge of their racial inferiority, link my own nation's fate with that of these so-called "oppressed nations."

The love for the powerful and the hatred for the powerless which is so typical for the sado-masochistic character explains a great deal of Hitler's and his followers' political actions. While the Republican government thought they could "appease" the Nazis by treating them leniently, they not only failed to appease them but aroused their hatred by the very lack of power and firmness they showed. Hitler hated the Weimar Republic *because* it was weak and he admired the industrial and military leaders because they had power. He never fought against established strong power but always against groups which he thought to be essentially powerless. Hitler's—and for that matter, Mussolini's—"revolution" happened under protection of existing power and their favorite objects were those who could not defend themselves. One might even venture to assume that Hitler's attitude toward Great Britain was determined, among other factors, by this psychological complex. As long as he felt Britain to be powerful, he loved and admired her. His book gives expression to this love for Britain. When he recognized the weakness of the British position before and after Munich his love changed into hatred and the wish to destroy it. From this viewpoint "appeasement" was a policy which for a personality like Hitler was bound to arouse hatred, not friendship.

So far we have spoken of the *sadistic* side in Hitler's ideology. However, as we have seen in the discussion of the authoritarian character, there is the *masochistic* side as well as the sadistic one. There is the wish to submit to an overwhelmingly strong power, to annihilate the self, besides the wish to have power over helpless beings. This masochistic side of the Nazi ideology and practice is most obvious with respect to the masses. They are told again and again: the individual is nothing and does not count. The individual should accept this personal insignificance, dissolve himself in a higher power, and then feel proud in participating in the strength and glory of this higher power. Hitler expresses this idea clearly in his definition of idealism:

> Idealism alone leads men to voluntary acknowledgment of the privilege of force and strength and thus makes them become a dust particle of that order which forms and shapes the entire universe.

Goebbels gives a similar definition of what he calls socialism: "To be a socialist," he writes, "is to submit the I to the thou; socialism is sacrificing the individual to the whole." [9]

Sacrificing the individual and reducing it to a bit of dust, to an atom, implies, according to Hitler, the renunciation of the right to assert one's individual opinion, interests, and happiness. This renunciation is the essence of a political organization in which "the individual renounces representing his personal opinion and his interests. . . ." He praises "unselfishness" and teaches that "in the hunt for their own happiness people fall all the more out of heaven into hell." It is the aim of education to teach the individual not to assert his self. Already the boy in school must learn "to be silent, not only when he is blamed justly but he has also to learn, if necessary, to bear injustice in silence." Concerning his ultimate goal he writes:

> In the folkish State the folkish view of life has finally to succeed in bringing about that nobler era when men see their care no longer in the better breeding of dogs, horses and cats, but rather in the uplifting of mankind itself, an era in which the one knowingly and silently renounces, and the other gladly gives and sacrifices.

This sentence is somewhat surprising. One would expect that after the descrip-

[9] Goebbels, *Michael*, p. 25.

tion of the one type of individual, who "knowingly and silently renounces," an opposite type would be described, perhaps the one who leads, takes responsibility, or something similar. But instead of that Hitler defines that "other" type also by his ability to sacrifice. It is difficult to understand the difference between "silently renounces," and "gladly sacrifices." If I may venture a guess, I believe that Hitler really intended in his mind to differentiate between the masses who should resign and the ruler who should rule. But while sometimes he quite overtly admits his and the "elite's" wish for power, he often denies it. In this sentence he apparently did not want to be so frank and therefore substituted the wish to "gladly give and sacrifice" for the wish to rule.

Hitler recognizes clearly that his philosophy of self-denial and sacrifice is meant for those whose economic situation does not allow them any happiness. He does not want to bring about a social order which would make personal happiness possible for every individual; he wants to exploit the very poverty of the masses in order to make them believe in his evangelism of self-annihilation. Quite frankly he declares:

> We turn to the great army of those who are so poor that their personal lives could not mean the highest fortune of the world. . . .

This whole preaching of self-sacrifice has an obvious purpose: The masses have to resign themselves and submit if the wish for power on the side of the leader and the "elite" is to be realized. But this masochistic longing is also to be found in Hitler himself. For him the superior power to which he submits is God, Fate, Necessity, History, Nature. Actually all these terms have about the same meaning to him, that of symbols of an overwhelmingly strong power. He starts his autobiography with the remark that to him it was a "good fortune that *Fate* designated Braunau on the Inn as the place of my birth." He then goes on to say that the whole German people must be united in one state because only then, when this state would be too small for them all, *necessity* would give them "the moral right to acquire soil and territory."

The defeat in the war of 1914–1918 to him is "a deserved punishment by *eternal retribution.*" Nations that mix themselves with other races "sin against the will of eternal *Providence*" or, as he puts it another time, "against the will of the Eternal *Creator.*" Germany's mission is ordered by "the Creator of the universe." *Heaven* is superior to people, for luckily one can fool people but "Heaven could not be bribed."

The power which impresses Hitler probably more than God, Providence, and Fate, is *Nature.* While it was the trend of the historical development of the last four hundred years to replace the domination over men by the domination over Nature, Hitler insists that one can and should rule over men but that one cannot rule over Nature. I have already quoted his saying that the history of mankind probably did not start with the domestication of animals but with the domination over inferior people. He ridicules the idea that man could conquer Nature and makes fun of those who believe they could become conquerors of Nature "whereas they have no other weapon at their disposal but an 'idea.'" He says that man "does not dominate Nature, but that, based on the knowledge of a few laws and secrets of Nature, he has risen to the position of master of those other living beings lacking this knowledge." There again we find the same idea: Nature is the great power we have to submit to, but living beings are the ones we should dominate.

I have tried to show in Hitler's writings the two trends that we have already described as fundamental for the authoritarian character: the craving for power over men and the longing for submission

to an overwhelmingly strong outside power. Hitler's ideas are more or less identical with the ideology of the Nazi party. The ideas expressed in his book are those which he expressed in the countless speeches by which he won mass following for his party. This ideology results from his personality which, with its inferiority feeling, hatred against life, asceticism, and envy of those who enjoy life, is the soil of sado-masochistic strivings; it was addressed to people who, on account of their similar character structure, felt attracted and excited by these teachings and became ardent followers of the man who expressed what they felt. But it was not only the Nazi ideology that satisfied the lower middle class; the political practice realized what the ideology promised. A hierarchy was created in which everyone has somebody above him to submit to and somebody beneath him to feel power over; the man at the top, the leader, has Fate, History, Nature above him as the power in which to submerge himself. Thus the Nazi ideology and practice satisfies the desires springing from the character structure of one part of the population and gives direction and orientation to those who, though not enjoying domination and submission, were resigned and had given up faith in life, in their own decisions, in everything.

4.

CONDITIONS OF EFFECTIVE LEADERSHIP IN THE INDUSTRIAL ORGANIZATION

By Douglas McGregor

This discussion of relationships among people at work is written from the point of view of dynamic psychology which, because of its origin in the clinic, directs attention to the whole individual living and interacting within a world of other individuals. Life, from the point of view of dynamic psychology, is a continuous striving to satisfy ever-changing needs in the face of obstacles. The work life is but a segment—although a large one—of the whole.

The Setting

Within this framework we shall examine some of the important forces and events in the work situation which aid or hinder the individual as he strives to satisfy his needs. First of all, we must recognize a fundamental fact: the direct impact of almost all these forces upon the individual is through the behavior of other people. This is obvious when we speak of an order from the boss, or pressures exerted by fellow workers to get the individual to join a union. It is perhaps less obvious when we speak of the impact of the business cycle, or the consequences of a fundamental technological change. Nevertheless, the direct influence of these forces on the individual—whether he is a worker or a plant manager—occurs through the medium of the actions of other people. We must include not only the easily observed actions of others, but subtle, fleeting manifestations of attitude and emotion to which the individual reacts almost unconsciously.

For purposes of discussion we may arbitrarily divide the actions of other people which influence the individual in the work situation into three classes: actions of superiors, of subordinates, and of associates. We shall limit our attention

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mainly to the actions of superiors as they affect the subordinate in his striving to satisfy his needs. This relationship is logically prior to the others, and it is in many ways the most important human relationship in industry.

The fundamental characteristics of the subordinate-superior relationship are identical whether one talks of the worker and the supervisor, the assistant superintendent and the superintendent, or the vice-president and the president. There are, to be sure, differences in the content of the relationship, and in the relative importance of its characteristics, at different levels of the industrial organization. The underlying aspects, however, are common to all levels.

The Dependence of the Subordinate

The outstanding characteristic of the relationship between the subordinate and his superiors is his dependence upon them for the satisfaction of his needs. Industry in our civilization is organized along authoritative lines. In a fundamental and pervasive sense, the subordinate is dependent upon his superiors for his job, for the continuity of his employment, for promotion with its accompanying satisfactions in the form of increased pay, responsibility and prestige, and for a host of other personal and social satisfactions to be obtained in the work situation.

This dependence is not adequately recognized in our culture. For one thing, it is not consistent with some of our basic social values. The emphasis is usually placed upon the importance of the subordinate's own efforts in achieving the satisfaction of his needs. Nevertheless, the dependence is real, and subordinates are not unaware of it. Among workers, surveys of attitudes invariably place "fair treatment by superiors" toward the top of the list of factors influencing job satisfaction.[1, 2] And the extent to which unions have attempted to place restrictions upon management's authority reflects not only a desire for power but a conscious attempt to reduce the dependence of workers upon their bosses.[3, 4]

Psychologically the dependence of the subordinate upon his superiors is a fact of extraordinary significance, in part because of its emotional similarity to the dependence characteristic of another earlier relationship: that between the child and his parents. The similarity is more than an analogy. The adult subordinate's dependence upon his superiors actually reawakens certain emotions and attitudes which were part of his childhood relationship with his parents, and which apparently have long since been outgrown. The adult is usually unaware of the similarity because most of this complex of childhood emotions has been repressed. Although the emotions influence his behavior, they are not accessible to consciousness under ordinary circumstances.

Superficially it may seem absurd to compare these two relationships, but one cannot observe human behavior in industry without being struck by the fundamental similarity between them. Space limitations prevent elaboration of this point here, in spite of its great importance.[5]

[1] Harold B. Bergen, "Measuring Attitudes and Morale in Wartime," *The Conference Board Management Record*, 1942, IV, 101–104.

[2] Robert N. McMurry. "Management Mentalities and Worker Reactions," *Advanced Management*, 1942, VII, 165–172.

[3] Robert R. R. Brooks. *When Labor Organizes* (New Haven: Yale University Press, 1938).

[4] Twentieth Century Fund. *How Collective Bargaining Works: A Survey of Experience in Leading American Industries* (New York: The Fund, 1942).

[5] The relevant literature is vast. A fair introduction to it may be obtained through the following: Walter C. Langer, *Psychology and Human Living* (New York: D. Appleton-Century Co., 1943); A. H. Maslow and Bela Mittelmann, *Principles of Abnormal Psychology* (New York: Harper & Brothers,

There are certain inevitable consequences of the dependence of the subordinate upon his superiors. The success or failure of the relationship depends on the way in which these consequences are handled. An understanding of them provides a more useful basis than the usual "rules of thumb" for a consideration of problems of industrial relations. These consequences of the dependence of the subordinate will be discussed under two main headings: (1) the necessity for security in the work situation, and (2) the necessity for self-realization.

The Necessity for Security

Subordinates will struggle to protect themselves against real or imagined threats to the satisfaction of their needs in the work situation. Analysis of this protective behavior suggests that the actions of superiors are frequently perceived as the source of the threats.[6] Before subordinates can believe that it is possible to satisfy their wants in the work situation, they must acquire a convincing sense of security in their dependent relationship to their superiors.

Management has recognized the financial aspects of this need for security, and has attempted to provide for it by means of employee retirement plans, health and accident insurance, the encouragement of employee credit unions, and even guaranteed annual wages.[7] However this recognition does not get at the heart of the problem: the personal dependence of the subordinate upon the judgments and decisions of his superior.

Labor unions have attacked the problem more directly in their attempts to obtain rules governing promotions and layoffs, grievance procedures, arbitration provisions, and protection against arbitrary changes in work-loads and rates.[8, 9] One important purpose of such "protective" features in union contracts is to restrict superiors in the making of decisions which, *from the worker's point of view*, are arbitrary and threatening. They help to provide the subordinate with a measure of security despite his dependence on his superiors.

The Conditions of Security: An Atmosphere of Approval

There are three major aspects of the subordinate-superior relationship—*at any level of the organization*—which affect the security of the subordinate. The most important of these is what we may term the "atmosphere" created by the superior.[10] This atmosphere is revealed not by what the superior does but by the manner in which he does it, and by his underlying attitude toward his

1941); John Dollard, Leonard W. Doob, and others, *Frustration and Aggression* (New Haven: Yale University Press, 1939); John Levy and Ruth Munroe. *The Happy Family* (New York: Alfred A. Knopf, 1941).

[6] *Cf.*, for example, the detailed observation of the "bank-wiring" group at the Hawthorne Plant of Western Electric, reported in Chaps. XVII to XXIII of F. J. Roethlisberger and W. J. Dickson, *Management and the Worker* (Cambridge, Mass.: Harvard University Press, 1939). For evidence at another level of the industrial organization, see Conrad M. Arensberg and Douglas McGregor, "Determination of Morale in an Industrial Company," *Appl. Anthrop.*, 1942, I, 12–34.

[7] Discussions of plans for financial security will be found in the research reports of the National Industrial Conference Board and the Personnel Division of the American Management Association, and in the publications of the Policyholders' Service Bureau of the Metropolitan Life Insurance Company.

[8] *Cf.* United States Department of Labor, Bureau of Labor Statistics, Bulletin No. 686, *Union Agreement Provisions* (Washington, Government Printing Office, 1942).

[9] Sumner H. Slichter, *Union Policies and Industrial Management* (Washington: The Brookings Institution, 1941).

[10] The vital importance of this attitude in familial superior-subordinate relationships is stressed everywhere in the literature of dynamic psychology. See, for example, J. McV. Hunt (ed.), *Personality and the Behavior Disorders* (Vol. II; New York: The Ronald Press Company, 1944).

subordinates. It is relatively independent of the strictness of the superior's discipline, or the standards of performance which he demands.

A foreman who had unwittingly created such an atmosphere attempted to establish a rule that union officials should obtain his permission when they left the job to meet with higher management, and report to him when they returned. This entirely reasonable action aroused intense resentment, although the same rule was readily accepted by union officials in another part of the plant. The specific actions were unimportant except in terms of the background against which the subordinates perceived them: an atmosphere of disapproval in the one case and of approval in the other.

Security for subordinates is possible only when they know they have the genuine approval of their superior. If the atmosphere is equivocal, or one of disapproval, they can have no assurance that their needs will be satisfied, *regardless of what they do.* In the absence of a genuine attitude of approval subordinates are threatened, fearful, insecure. Even neutral and innocuous actions of the superior are regarded with suspicion. Effective discipline is impossible, high standards of performance cannot be maintained, "sabotage" of the superior's efforts is almost inevitable. Resistance, antagonism, and ultimately open rebellion are the consequences.

The Conditions of Security: Knowledge

The second requirement for the subordinate's security is knowledge. *He must know what is expected of him.* Otherwise he may, through errors of commission or omission, interfere with the satisfaction of his own needs. There are several kinds of knowledge which the subordinate requires:

1. *Knowledge of over-all company policy and management philosophy.* Security is impossible in a world of shifting foundations. This fact was convincingly demonstrated—to management in particular—during the first few months of the existence of the War Labor Board. The cry for a national labor policy was frequently heard. "Without it we don't know how to act." Likewise, subordinates in the individual company require a knowledge of the broad policy and philosophy of top management.[11]

2. *Knowledge of procedures, rules and regulations.* Without this knowledge, the subordinate can only learn by trial and error, and the threat of punishment because of innocent infractions hangs always over his head.[12]

3. *Knowledge of the requirements of the subordinate's own job; his duties, responsibilities, and place in the organization.* It is surprising how often subordinates (particularly within the management organization) are unable to obtain this essential knowledge. Lacking it, one can never be sure when to make a decision, or when to refer the matter to someone else; when to act or when to "pass the buck."[13] The potential dangers in this kind of insecurity are apparent upon the most casual consideration.

4. *Knowledge of the personal peculiarities of the subordinate's immediate superior.* The good salesman never approaches a new prospect without learning all he can about his interests, habits, prejudices, and opinions. The subordinate must sell *himself* to his superior, and consequently such knowledge is indispensable to him.

[11] A few employee "handbooks" demonstrate an awareness of this point. See for example, *Employe Relations in General Foods* (2d ed.; New York: General Foods Corporation, 1941).

[12] This is the usually recognized reason for the publication of employee handbooks. *Cf.* Alexander R. Heron, *Sharing Information With Employees* (Stanford University: Stanford University Press, 1942)

[13] Donaldson Brown, "Industrial Management as a National Resource." *The Conference Board Management Record*, 1943, V, 142–148.

Does the boss demand initiative and originality, or does he want to make all the decisions himself? What are the unpardonable sins, the things this superior never forgives or forgets? What are his soft spots, and what are his blind spots? There can be no security for the subordinate until he has discovered the answers to these questions.

5. *Knowledge by the subordinate of the superior's opinion of his performance.* Where do I stand? How am I doing? To know where you stand in the eyes of your superiors is to know what you must do in order to satisfy your needs.[14] Lacking this knowledge, the subordinate can have, at best, only a false sense of security.

6. *Advance knowledge of changes that may affect the subordinate.* Resistance to change is a common phenomenon among employees in industry.[15, 16, 17] One of the fundamental reasons is the effect of unpredictable changes upon security. If the subordinate knows that he will always be given adequate warning of changes, and an understanding of the reasons for them, he does not fear them half so much. Conversely, the normal inertia of human habits is tremendously reinforced when one must be forever prepared against unforeseen changes in policy, rules, methods of work, or even in the continuity of employment and wages.

It is not necessary to turn to industry for evidence in support of the principles outlined above. Everywhere in our world today we see the consequences of the insecurity caused by our inability to know what we need to know in order to insure even partially the satisfaction of our needs. Knowledge is power, primarily because it decreases dependence upon the unknown and unpredictable.

The Conditions of Security: Consistent Discipline

The third requirement for the subordinate's security in his relationship of dependence on his superiors is that of consistent discipline. It is a fact often unrecognized that discipline may take the form of positive support for "right" actions as well as criticism and punishment for "wrong" ones. The subordinate, in order to be secure, requires consistent discipline in both senses.[18]

He requires first of all the strong and willing backing of his superiors for those actions which are in accord with what is expected of him. There is much talk among some managements about superiors who fail to "back up" their subordinates. The insecurity that arises when a subordinate does not know under what conditions he will be backed up leads him to "keep his neck pulled in" at all times. Buck-passing and its consequent frictions and resentment are inevitable under such circumstances.

Given a clear knowledge of what is expected of him, the subordinate requires in addition the definite assurance that he will have the unqualified support of his superiors so long as his actions are consistent with those policies and are taken within the limits of his responsibility. Only then can he have the security and confidence that will enable him to do his job well.

At the same time the subordinate must know that failure to live up to his responsibilities, or to observe the rules

[14] This, of course, is the reason for merit rating plans *Cf* National Industrial Conference Board, Inc., *Employee Rating. Methods of Appraising Ability, Efficiency and Potentialities* (Studies in Personnel Policy No. 39, New York· N.I.C.B., 1941).

[15] F. J. Roethlisberger and W. J. Dickson, *loc. cit.*

[16] Douglas McGregor and Irving Knickerbocker, "Industrial Relations and National Defense: A Challenge to Management." *Personnel*, 1941, XVIII, 49–63.

[17] Sumner H. Slichter, *loc. cit.* Chaps. VII–IX.

[18] This, of course, is simply the well-known principle underlying all theories of learning. We need not discuss here its many complicated features.

which are established, will result in punishment. Every individual has many wants which conflict with the demands of his job. If he knows that breaking the rules to satisfy these wants will *almost inevitably* result in the frustration of his vital long-range needs, self-discipline will be less difficult. If, on the other hand, discipline is inconsistent and uncertain, he may be unnecessarily denying himself satisfaction by obeying the rules. The insecurity, born of uncertainty and of guilt, which is inevitably a consequence of lax discipline, is unpleasant and painful for the subordinate.

What frequently happens is this. The superior, in trying to be a "good fellow," fails to maintain discipline and to obtain the standards of performance which are necessary. His subordinates—human beings striving to satisfy their needs—"take advantage of the situation." The superior then begins to disapprove of his subordinates (in spite of the fact that he is to blame for their behavior). Perhaps he "cracks down" on them, perhaps he simply grows more and more critical and disapproving. In either event, because he has failed to establish consistent discipline *in an atmosphere of genuine approval*, they are threatened. The combination of guilt and insecurity on the part of the subordinates leads easily to antagonism, and therefore to further actions of which the superior disapproves. Thus a vicious circle of disapproval → antagonistic acts → more disapproval → more antagonistic acts is set up. In the end it becomes extremely difficult to remedy a situation of this kind because both superior and subordinates have a chip-on-the-shoulder attitude which must be abolished before the relationship can improve.

Every subordinate, then, requires the security of knowing that he can count on the firm support of his superiors for doing what is "right," and firm pressure (even punishment) to prevent his doing what is "wrong." *But this discipline must be established and maintained in an atmosphere of approval.* Otherwise, the subordinate's suspicion and resentment of his superiors will lead to the opposite reaction from the desired one. A mild degree of discipline is sufficient in an atmosphere of approval; even the most severe discipline will in the end be unsuccessful in an atmosphere of disapproval. The behavior of the people in the occupied countries of Europe today provides a convincing demonstration of this psychological principle.

The Necessity for Independence

When the subordinate has achieved a reasonable degree of genuine security in his relationship to his superiors, he will begin to seek ways of utilizing more fully his capacities and skills, of achieving through his own efforts a larger degree of satisfaction from his work. Given security, the subordinate seeks to develop himself. This *active* search for independence is constructive and healthy. It is collaborative and friendly, yet genuinely self-assertive.

If, on the other hand, the subordinate feels that his dependence on his superiors is extreme, and if he lacks security,[19] he will fight blindly for freedom. This *reactive* struggle for independence is founded on fear and hatred. It leads to friction and strife, and it tends to perpetuate itself because it interferes with the development of an atmosphere of approval which is essential to security.

These two fundamentally opposite ways in which subordinates seek to acquire independence have entirely different consequences. Since we are concerned with the conditions of the successful subordinate-superior relationship, we shall

[19] It is the *subordinate's own feelings* and not the "objective" facts which are vital in this connection.

emphasize the active rather than the reactive striving for independence.[20]

The Conditions of Active Independence: Participation

One of the most important conditions of the subordinate's growth and development centers around his opportunities to express his ideas and to contribute his suggestions before his superiors take action on matters which involve him.[21, 22] Through participation of this kind he becomes more and more aware of his superiors' problems, and he obtains a genuine satisfaction in knowing that his opinions and ideas are given consideration in the search for solutions.[23]

Participation of this kind is fairly prevalent in the upper levels of industrial organizations. It is often entirely lacking further down the line. Some people insist that the proponents of participation at the lower levels of industry are unrealistic idealists. However, there are highly successful instances in existence of "consultative supervision," [24] "multiple management," [25] and "union-management cooperation." [26] The important point is that participation cannot be successful unless the conditions of security are adequately met. Many failures among the currently popular Labor-Management Production Drive Committees can be traced directly to this fundamental fact that active independence cannot be achieved in the absence of adequate security.[27, 28]

There is a real challenge and a deep satisfaction for the subordinate who is given the opportunity to aid in the solution of the difficult but fascinating problems that arise daily in any industrial organization. The superior who, having provided security for his subordinates, encourages them to accept this challenge and to strive *with him* to obtain this satisfaction, is almost invariably surprised at the fruitfulness of the results. The president of one company remarked, after a few management conferences designed to encourage this kind of participation, that he had never before realized in considering his problems how many alternative possibilities were available, nor how inadequate had been the knowledge upon which he based his decisions. Contrary to the usual opinion, this discovery is as likely at the bottom of an organization as at the top, once the initial feelings of inadequacy and hesitancy among workers are overcome.[29]

The genuine collaboration among all the members of an industrial organization which is eulogized by "impractical

[20] A. H. Maslow. "The Authoritarian Character Structure," *J. Soc. Psychol.*, 1943, XVIII, 401–411.

[21] The work of Kurt Lewin and his students at the University of Iowa on group dynamics is relevant to this whole discussion, but it is especially pertinent to this matter of participation. *Cf.* K. Lewin, R. Lippitt, and S. K. Escalona, *Studies in Topological and Vector Psychology I* (University of Iowa Studies in Child Welfare, 1940, XVI, No. 3).

[22] Alex Bavelas, "Morale and the Training of Leaders," in Goodwin Watson (ed.), *Civilian Morale*, Second Yearbook of the Society for the Psychological Study of Social Issues (New York: Houghton Mifflin Co., 1942).

[23] The fear is often expressed that subordinates, given the slightest opportunity, will seek to usurp their superiors' "prerogatives." Actually, such attempts are symptomatic of the *reactive* struggle for independence. These fears are groundless when subordinates are given adequate security.

[24] H. H. Carey. "Consultative Supervision and Management," *Personnel*, 1942, XVIII, 286–295.

[25] Charles P. McCormick. *Multiple Management* (New York: Harper & Brothers, 1938).

[26] Clinton S. Golden and Harold J. Ruttenberg. *The Dynamics of Industrial Democracy* (New York: Harper & Bros., 1942).

[27] "Mill and Factory's Survey of the Labor-Management Production Drive." *Mill and Factory*, 1942, XXX, 57–60.

[28] "Are War Production Drives Worth While?" *Factory Management and Maintenance*, 1942, C, 74–80.

[29] Clinton S. Golden and Harold J. Ruttenberg, *loc. cit.* ch. 9.

idealists" is actually quite possible. But it can only begin to emerge when the mechanisms of genuine participation become an established part of the organization routines.

Conditions of Active Independence: Responsibility

A corollary of the desire for participation is a desire for responsibility. It is another manifestation of the active search for independence. Insecure or rebellious subordinates—seeking independence in the reactive sense—do not accept responsibility. They are seeking freedom, not the opportunity for self-realization and development.

The willingness to assume responsibility is a genuine maturational phenomenon. Just as children cannot grasp the meaning of the algebraic use of symbols until their intellectual development has reached a certain level, so subordinates cannot accept responsibility until they have achieved a certain degree of emotional security in their relationship to their superiors. Then they want it. They accept it with obvious pleasure and pride. And if it is given to them gradually, so that they are not suddenly made insecure again by too great a load of it, they will continue to accept more and more.

The process of granting responsibility to subordinates is a delicate one. There are vast individual differences in tolerance for the inevitable pressures and insecurities attendant upon the acceptance of responsibility. Some subordinates seem to be content to achieve a high degree of security without independence. Others thrive on the risks and the dangers of being "on their own." However, there are few subordinates whose capabilities in this direction are fully realized. It is unwise to attribute the absence of a desire for responsibility to the individual's personality alone until one has made certain that his relationship to his superiors is genuinely secure.

Many superiors are themselves so insecure that they cannot run the risk of being responsible for their subordinates' mistakes. Often they are unconsciously afraid to have capable and developing subordinates. The delegation of responsibility, as well as its acceptance, requires a confident and secure relationship with one's superiors.[30]

Conditions of Active Independence: The Right of Appeal

There are occasions when subordinates differ radically but sincerely with their superiors on important questions. Unless the superior follows an "appeasement" policy (which in the end will cost him his subordinates' respect), there exists in such disagreement the possibility of an exaggerated feeling of dependence and helplessness in the minds of the subordinates. They disagree for reasons which seem *to them* sound; yet they must defer to the judgment of one person whom they know to be fallible.

If these occasions are too frequent, the subordinates will be blocked in their search for independence, and they may readily revert to a reactive struggle. The way out of the dilemma is to provide the subordinate with a mechanism for appealing his superior's decisions to a higher level of the organization. The subordinate can then have at hand a check upon the correctness and fairness of his superior's actions. His feeling of independence is thereby increased.

This is one of the justifications for an adequate grievance procedure for workers.[31, 32] All too often, however, there is no similar mechanism provided for mem-

[30] Irving Knickerbocker and Douglas McGregor, "Union-Management Cooperation: A Psychological Analysis," *Personnel*, 1942, XIX, 530–533.

[31] Solomon Barkin. "Unions and Grievances," *Personnel Journal*, 1943, XXII, 38–48.

[32] United States Department of Labor, Division of Labor Standards, Bulletin No. 60, *Settling Plant Grievances* (Washington: Government Printing Office, 1943).

bers of management. To be sure, in the absence of a union it is difficult to safeguard the individual against retaliative measures by his immediate superior, but it is possible to guarantee a reasonable degree of protection.

If the relationship between subordinate and superior is a successful one, the right of appeal may rarely be exercised. Nevertheless, the awareness that it is there to be used when needed provides the subordinate with a feeling of independence which is not otherwise possible.

Summary

The subordinate in the industrial organization is dependent for the satisfaction of many of his vital needs upon the behavior and attitudes of his superiors. He requires, therefore, a feeling of confidence that he can satisfy his needs if he does what is expected of him. Given this security, he requires opportunities for self-realization and development.

Among the conditions influencing the subordinate's feelings of security are: (1) an "atmosphere" of approval, (2) knowledge of what is expected of him, and of how well he is measuring up to these expectations, (3) forewarning of changes that may affect him, and (4) consistent discipline both in the form of backing when he is "right" and in the form of punishment when he is "wrong."

The conditions under which the subordinate can realize his own potentialities include: (1) an adequate sense of security in relation to his superiors, (2) opportunities to participate in the solution of problems and in the discussion of actions which may affect him, (3) the opportunity to assume responsibility as he becomes ready for it, and (4) the right of appeal over the head of his immediate superior.

These conditions are minimal. Upon their fulfillment in some degree rests the success or failure of the subordinate-superior relationship at every level of the industrial organization from that of the vice-president to that of the worker.

X

Industrial Morale

1.

MORALE IN WAR INDUSTRIES

By Daniel Katz and Herbert Hyman

Laboratory experiments on motivation have yielded valuable information about the biology of basic drives but they have given us few generalizations for controlling and predicting human behavior in the complex social situations of practical life. We need to know, for example, the conditions that make for high worker morale, since maximum production of goods is a significant problem in peace and a critical problem in war. Fortunately, the scientific logic of laboratory procedures can be applied to such problems through the field, or survey, method. This method, through observations and interviewing by a field staff of investigators, identifies and measures the factors operative in the social situation outside the laboratory and so builds up the principles necessary for a science of social psychology. During the war many problems of human relations important for the war effort were studied through the survey method, of which the following investigation of worker morale in the shipbuilding industry is an illustration.

The Problem. During the early years of the war a crucial task was the creation of a bridge of ships to supply our Allies and to build up our own fighting fronts. Shipbuilding concerns, however, varied strikingly in the speed with which they were able to turn out the same type of ships. One New England yard, for example, took three times as long to do a particular job as a second yard in the same area and four times as long as a third Eastern coast yard.

TABLE 1

AVERAGE DAYS TAKEN FROM KEEL-LAYING TO DELIVERY

(War Production Board figures for Aug., Sept., and Oct. 1942)

Yard	Days
Shipyard A	57
Shipyard B	69
Shipyard C	76
Shipyard D	101
Shipyard E	207

These great differences in productivity could be due to many causes other than worker morale, such as the type of physical plant, the flow of raw materials to the yard, the technical know-how of management, etc. But the human factor could also be a significant contributing cause, if not in itself a major determinant.

Design of the Study. A study was planned, therefore, to measure worker morale in the five shipyards and the re-

This chapter is based on a research investigation conducted during World War II by the Division of Program Surveys of the U. S. Department of Agriculture (Director, Rensis Likert), in collaboration with the Surveys Division of the Office of War Information (Director, Elmo Wilson). The authors directed the study and were assisted by Walter Quinn and Douglas Ellson.

lated working and living conditions. Three types of data were obtained: (1) worker satisfactions and dissatisfactions with the many specific aspects of the working situation such as wages, promotional policy, work week, health and safety conditions, and management practices; (2) information about the actual conditions at the plant; and (3) reports concerning the out-plant factors of living conditions such as adequacy of housing and transportation.

Information was gathered by the field staff from four sources: (*a*) from their own observations of plant and community conditions; (*b*) from plant records; (*c*) from detailed background interviews with key informants representing management, workers, and community; and (*d*) from intensive, depth interviews with a representative sample of workers in each of the five yards. Five hundred and fifty-three workers were interviewed in their homes between October 21 and November 7, 1942. The representative nature of the sample in each yard was carefully controlled by taking every *nth* name from the pay roll lists. For example, in a yard employing 15,000 workers, a sample of 150 was chosen by taking every hundredth name. In this way no selective error could distort the representativeness of the sample, and the employees interviewed in each yard were a more faithful reproduction of the working population than a much larger sample selected by the usual public-opinion polling methods.

The five yards were selected to give some range of differences in production. Two of them were selected from the same community to give a control for out-plant factors.

Results: Case Studies of the Five Yards. Though there are generalizations which held true for all of the shipyards, it is helpful to know the particular patterning of conditions existing within each plant. The meaning of a specific, single factor like poor safety conditions is determined in part by the context in which it appears. In a plant where earnings are good, production is high, and other conditions are favorable, health hazards may be tolerated, whereas in a less favorable setting they may become the occasion for controversy.

Hence, the following summaries of conditions in three of the yards are presented with a detailed report on the remaining two yards.

Summary of Conditions in Three Yards

Shipyard B (on the West Coast) enjoyed good worker motivation in spite of poor community living conditions. Identification with the plant's success in turning out ships plus good earnings made up for the daily frustrations of getting to and from work.

Plant A (in a Middle Atlantic state) had the advantage of relatively better community conditions for its workers at a longer established plant, as well as an excellent earning situation due to a seven-day week. Its workers took pride in producing ships, but the morale situation was complicated by rumors of a cutback in work-week and wages and a change in type of craft to be produced. The uncertainty about company policy led to anxiety and insecurity among employees.

At the other end of the scale was Shipyard D (on the Gulf coast) struggling under a miserable out-plant situation, with inadequate housing, bad sanitary conditions, and poor recreational facilities. Moreover, the in-plant pattern was on the debit side with resentment over a cut in work-week and wages, poor production, and poor labor-management relations.

A New England city with unfavorable conditions of housing, climate, and recreation had two yards which presented opposing pictures: Shipyard C, high in production and morale; and Shipyard E with a miserable production record.

TABLE 2

TRAVELING TIME TO AND FROM WORK

Traveling time	Yard E, percent (68 workers)	Yard C, percent (73 workers)
Under 1 hour	54	52
More than 1 but less than 2	31	32
More than 2 but less than 3	6	5
More than 3 but less than 4	3	1
More than 4	6	10

DETAILED REPORTS OF TWO YARDS IN THE SAME CITY UNDER SAME OUT-PLANT CONDITIONS: YARDS C AND E

AVERAGE TIME TO TURN OUT A SHIP

Yard E	Yard C
207 Days	76 Days

This New England city contributed a striking chapter to the history of worker morale because its two shipyards were almost classic cases of worker demoralization and plant inefficiency on the one hand and worker cooperation and high production on the other. The two yards were adjacent and were confronted with similar out-plant conditions. Yard C was the older. Though both yards drew upon a similar labor supply, Yard C had an advantage in that its earlier establishment permitted it to obtain a greater proportion of skilled workers. The two yards had been under separate ownership, but just prior to the study, they were merged, although they maintained separate management staffs.

Community Background. These two shipyards employed about 30,000 workers, and the combined populations of the city and a near suburb amounted to only 90,000 in 1940. Since most of the workers were drawn from outside the city, the facilities of the two communities were overtaxed to provide housing and transportation for the new workers. The company estimated that one third of the workers commuted from places fifteen to sixty miles from the yards.

Even though Shipyard C was the older yard, its workers apparently were at just as much of a disadvantage in getting to and from work as the employees of Yard E. The transportation difficulties in this area were intensified by the severe winter weather.

The housing shortage produced the same health and living problems as in other defense areas. Tourist cottages were loaded to capacity at excessive rates though they were not sealed or weatherproofed and were inadequate for the northern winter. Similarly, the trailer camps outside the city could not continue to exist during the winter months except at the cost of a good deal of suffering. In October, the officials of Shipyard C estimated that even with the completion of about 4,000 dwelling units, there would be a shortage of about 2,000 units on February 1. This seemed an understatement of the acuteness of the need because it assumed that half of the 3,000 employees living in trailer camps and summer cottages would pay to remain in them throughout the winter. Overcrowded conditions also brought a shortage of recreational facilities, especially for the men who worked on the second and third shifts. The local social agencies had the problem of setting up recreational centers for service men to take care of the big army camp nearby, so

TABLE 3

WEEKLY EARNINGS

Dollars per week	Yard E, percent (68 workers)	Yard C, percent (73 workers)
Under $45	37	6
$46 to 55	22	27
56 to 65	19	17
66 to 75	9	18
76 to 85	9	15
86 or over	3	15
Not ascertainable	1	2

they had little time to give to the recreational needs of shipyard workers.

A number of informants asserted that the middle and upper classes in this city resented the influx of working men who overran the town. At best, the shipyard workers were regarded as a temporary evil. One of the interviewers recorded her observations as follows:

> There's a stigma attached to being a shipyard worker. Even the children are discriminated against in the classroom. A youngster sat on the second team bench throughout a basketball game to watch an inferior player lose the game of the year "because I'm an outsider." Many of the youngsters are unhappy and try to stay away from school because of the discrimination. They want to go back home. Mothers share the feeling of their children because they encounter the same barriers in trying to participate in community activities.

In-plant Conditions and Relations with Management. Rival CIO and AF of L unions negotiated contracts with Shipyards C and E respectively, in which certain classes of workers were to be reclassified and given the new higher wages of the Chicago agreement. Yard C workers were reclassified and received back pay representing the difference between the old and new classification, retroactive to the time that the new contract was to take effect. Yard E men had not received equivalent treatment, although the AF of L had signed a contract with the company. This agreement, however, was awaiting approval by the Maritime Commission and apparently the Maritime Commission had postponed action until after an NLRB election. Meanwhile, the company was not paying the new rates to its old employees. The men were bitter about the way they had been treated and had engaged in a number of unauthorized strikes, slow-downs, and walkouts. About two weeks before interviewing began there had been a walkout, on October 10. The differential treatment in the adjacent yards had intensified the discontent of Yard E employees. The following worker's comment is an example of the reactions of the Yard E workers:

> The system they got is all wrong. It's rotten all the way through. The men been waiting for back pay and now they say they ain't a-going to get it. The unions been saying it'd do something about it. Union! Seems to be no union. The welders are still getting 68 cents an hour. The money's coming, never gets here. New men come in and get more.

The company made some attempt to meet the back-pay demands of the workers of Yard E, but this attempt met with small favor by the men because it fell so far short of their

TABLE 4

SATISFACTION WITH WAGES

Attitude	Yard E, percent (68 workers)	Yard C, percent (73 workers)
Satisfied	47	83
Satisfied in some respects, dissatisfied in others	13	3
Dissatisfied	40	13
Not ascertainable	—	1

expectations. An electrical mechanic in Yard E gave his opinion:

> They keep agitating the men with those devilish promises. If only they didn't keep promising 'em these things. If they'd only keep the promises they make or didn't make any, maybe they'd get better work. Sneaking around with their back pay. Saying put it in your pocket and don't show it to anyone. That's not American. That made it twice as bad. There ain't a contented man on that job—not one. . . . On this back pay the boys lost all those long hours before August. One boy had $450 coming to him. He only got $55. It's things like that that hurt. They bought a lot of things with that back pay. Look at the spot they're in.

The average earnings at Shipyard E were less than at any of the other yards studied. The contrast with Yard C was noticeable. Thirty-seven percent of Yard E workers earned less than $45 a week, whereas of their fellows in the neighboring Yard C, only 6 percent were in this earning category. Similarly, half of the Yard C workers made more than $65 a week, whereas only about one fifth of the Yard E workers drew such high wages.

These differences in earnings in the two yards were reflected in workers' statements of satisfaction and dissatisfaction. Yard E had the smallest percentage of workers satisfied of any of the yards studied.

Both yards had an eight-hour day with three shifts. After August 22, Yard E was on a six-day week with rotating shifts, which meant the men had every seventh day off, except every fifth week, when they worked seven days. Yard C had a straight seven-day week, but only about a third of the men worked the seventh day.

Though there was no difference in the daily hours of work in the two yards, more Yard C workers expressed themselves as satisfied with the length of the working day. Not a single Yard C worker voiced objections to the eight-hour day. On the other hand, there was more satisfaction with the shift worked at Yard E than at Yard C.

Both yards operated under severe handicaps for worker morale because of the cold winter. Part of the work of shipbuilding was necessarily out-of-doors and men on the evening and night shifts particularly dreaded the cold. They complained, for example, that lunches became frozen solid before it was time to eat them. It was somewhat surprising, therefore, to find that only a minority of the men were dissatisfied with working conditions in the yards. About one out of five Yard E workers verbalized his dissatisfaction as against one out of ten Yard C workers.

In addition to the complaints about the lack of warm meals and the cold, there was some concern expressed about health hazards and the dangerous nature of the work. On the other hand, the men

TABLE 5

SATISFACTION WITH WORKING TIME

Attitude	Satisfaction with length of working day		Satisfaction with length of working week		Satisfaction with shift	
	Yard E, percent	Yard C, percent	Yard E, percent	Yard C, percent	Yard E, percent	Yard C, percent
Satisfied	83	96	60	55	83	73
Satisfied in some respects, dissatisfied in others	4	—	9	12	10	18
Dissatisfied	8	—	27	27	7	9
Not ascertained	5	4	4	6	—	—

(Yard E, 68 workers; Yard C, 73 workers.)

TABLE 6

SATISFACTION WITH WORKING CONDITIONS

Attitude	Yard E, percent (68 workers)	Yard C, percent (73 workers)
Satisfied	74	87
Dissatisfied	21	12
Not ascertainable	5	1

tended to accept the danger as part of the game. The following comments were not unusual expressions of the workers' psychology:

Course it's quite dangerous, always more or less danger among ships. To put it right, it's 20 percent work and 80 percent danger, that's the size of it.

It ain't dangerous, if you know how to climb. There's a lot of rumors that fellows get hurt and get killed. You're sure to get minor injuries because it's dangerous. But if some of the fellows saw an accident, they'd swear that a man was killed. Then the next man would say two were killed and so on.

Attitudes Toward Management. Dissatisfaction with promotional policy was greater at Yard E than at any other of the five yards studied. One third of the Yard E workers were definitely dissatisfied with their chances for promotion or upgrading. The satisfaction at Yard C, on the other hand, was relatively high.

A basic criticism made by the Yard E men was that many of the new workers were paid higher wages than the old employees. One informant said:

Now I'm new here. I'm getting more money than the old-timers who have spent a good part of their lives in shipyards. There are lead men there responsible for production who are not getting as much as I am, nor as much as some of the greenhorns working under them. That don't help build ships.

The blame for the situation was not completely crystallized. Sometimes the

TABLE 7

SATISFACTION WITH PROMOTIONAL POLICY

Attitude	Yard E, percent (68 workers)	Yard C, percent (73 workers)
Satisfied	50	70
Satisfied in some respects, dissatisfied in others	9	2
Dissatisfied	33	24
Not ascertainable	8	4

TABLE 8

SATISFACTION WITH VARIOUS CONDITIONS

Attitude	Satisfaction with production		Satisfaction with use of workers' skills		Satisfaction with use of workers' time	
	Yard E, percent	Yard C, percent	Yard E, percent	Yard C, percent	Yard E, percent	Yard C, percent
Satisfied	31	70	56	66	49	60
Satisfied in some respects, dissatisfied in others	10	9	6	10	15	24
Dissatisfied	54	16	31	21	35	13
Not ascertainable	5	5	7	3	1	3

foreman was blamed, sometimes management, and frequently the men did not know to what to attribute the failure to reclassify older men.

In both yards, there was considerable criticism of the influx of the initial placement system. Many men felt that when they first came in they were placed in a certain department without really knowing where their ability or preferences lay and that transfer to another department later was almost impossible. The majority of the men at Yard E had not reached the point in demoralization where they did not care about their work. They were genuinely concerned about the inefficiency of the yard.

It was significant that more Yard E workers than Yard C workers were dissatisfied with production, with the utilization of men's time, and with the utilization of men's skills, in that the production records of the yards indicated either inefficiency or mismanagement in Yard E. The workers' comments suggested that the demoralization was as much a function of management as it was of labor.

A Yard E ship-fitter said:

> Putting in my time would be more like it, to be frank. I've never seen anything so slipshod in my life. Why, fifteen of us put up three pillars today. They're just not organized. They've got no system. I'm squawking because I haven't got enough to keep busy.

A rigger stated:

> It's the most mismanaged place I've seen. If you go through the place, it's like a WPA

TABLE 9

PRODUCTIVITY AND WORKER MORALE

Yard	Rank order in terms of productivity	Percent who have thought of quitting
Shipyard A	1	38
Shipyard C	3	38
Shipyard B	2	48
Shipyard D	4	50
Shipyard E	5	56

project. Worst place I've ever seen. They must have twice as many men at day as nights. If they could share it up well, like the cranes; they've got just so many and if they had the men there at night, they could get twice as much done. Like I had to wait today three or four hours for a crane. Now, I'm for real production and most of them there are like me. They got more guards there I think than there are on the police force. Hell, there's work to be done and they don't produce. Another thing—some departments are hoarding labor right here, got two to three times as many men as they need, some of them.

It is not surprising, therefore, to find the following contrast in worker confidence in the two yards:

CONFIDENCE IN MANAGEMENT

Shipyard C	67 percent
Shipyard E	20 percent

It was an encouraging fact that in spite of the bad morale situation at Yard E, the men themselves envied their fellow workers at Yard C, not only on account of their higher earnings, but also because of the better production record of Yard C. The men in both yards were interested in shipbuilding; they liked the type of work, and identified themselves with the ships they produced. Thus even at Yard E, with its poor record of turning out ships, there was a solid basis for increasing production in the future.

COMPARISONS BETWEEN YARDS

Relation between Productivity and Worker Morale. In general the yards with high productivity were the yards with high worker morale. To get a summary measure of worker's satisfaction, employees were asked: "Have you ever felt like quitting the yards?" The above table presents the results by yards. The proportion of potential quitters from yard to yard agrees fairly well with the production records of the yards. The poorest shipyard, Yard E, has the greatest number of men who feel, or who have felt, like quitting. Yard D is next in line just as it was next in low productivity. The major discrepancy in the two rank orders is that Yard B, though second in production, is third in this summary measure of morale.

Another measure of morale was furnished by the specific satisfaction and dissatisfaction with the earning situation, promotional policy, safety, workweek, etc. An index of the answers to seven such questions was computed and is compared with plant-productivity in the following table:

	Rank order in productivity	Index of specific worker dissatisfaction
Shipyard B	2	9.3
Shipyard C	3	9.4
Shipyard A	1	10.0
Shipyard D	4	10.0
Shipyard E	5	10.9

TABLE 10

LIVING CONDITIONS AND MORALE

Yard	Rank order in terms of favorable living conditions	Percentage of workers thinking of quitting	Index of specific dissatisfaction with job
Shipyard A	1	38	10.0
Shipyard E	2.5	56	10.9
Shipyard C	2.5	38	9.4
Shipyard B	4.5	48	9.3
Shipyard D	4.5	50	10.0

This specific index of worker morale, like the general summary question about quitting, is related to productivity. The yards are in the same relative rank order with the notable exception of Yard A, which though first in productivity is tied for third on the index of worker satisfaction. This is due in part to the fact that while the study was in process in Yard A, the management proposed a cut in the work-week from seven to six days, a cut equivalent to a pay reduction of about 25 percent. Hence the Yard A workers though scoring high on other questions of worker satisfaction were very much lower than the men in other yards on satisfaction with working week.

There is considerable evidence in the study to indicate that the positive relation between worker morale and productivity is one of circular reinforcement. High production in itself is a source of worker satisfaction. Discontent with working conditions means poor motivation and low production, and low production in turn adds to dissatisfaction. On the other hand, worker satisfaction with the job means higher production and increased worker morale. Though the earning situation is fundamental and should not be overlooked, men are also motivated by their feeling of participation in an important job. At Shipyard A the skilled workers were disappointed at the news that they would be set to work on barges. To them there was a world of difference between building a real ship and turning out a small barge. They complained that just when they were getting started to give the management a run for its money they were switched to a petty job. They did not understand at the time the role that these barges were to play in the successful invasions to come.

The identification of shipyard workers with the ships they build is indicated by the following comment of one of the older workers in Shipyard D:

> They used to let more men go on the trial runs of the boats. Now they have cut that out and a few of the big shots go and have a party and get drunk. All the men want to get to go on those trips, but they stopped it. The men feel that now. They are usually gone about twelve hours. It would help create a better feeling among the men if they would let them go. We launched a boat Sunday. My foreman, who has worked there 27 years, was there at the launching and he and his wife and baby stood out in the rain to watch it. Those big shots who stood up there under the shelter don't know anything about building a ship. I think those who do the work should get the credit for it and not those big shots who make all those pretty speeches.

Relation between Worker Morale and Out-plant Conditions. It is reasonable to suppose that when workers are forced to live in crowded and unsanitary quarters, in an unfriendly community,

TABLE 11

IN-PLANT CONDITIONS AND MORALE

Yard	Rank order on in-plant factors [a]	Percentage of workers thinking of quitting	Index of specific dissatisfaction with job
Shipyard B	1	48	9.3
Shipyard A	2.5	38	10.0
Shipyard C	2.5	38	9.4
Shipyard D	4	50	10.0
Shipyard E	5	56	10.9

[a] Wages, promotion, safety treatment of workers, etc.

and many miles from their work with poor transportation facilities, their job morale would be adversely affected. And the facts definitely show that workers and their families were discontented over their difficult living conditions in war centers. The surprising finding, however, is that out-plant conditions were a minor contributing factor and not the major cause of poor morale. Table 10 compares living conditions with worker morale.

These figures suggest that worker morale cannot be predicted on the basis of the type of out-plant factors affecting the worker. The two shipyards with the most unfavorable community conditions of living, Yards B and D, are at opposite ends of the scale in worker morale. As we have already seen, the same principle holds for Yards E and C which though located in the same community are miles apart in morale. Apparently, workers will put up with very poor housing, transportation, and recreational facilities if their earning situation is good and if the in-plant factors are favorable.

Relation between Worker Morale and In-plant Conditions. The answer to the problem of high worker morale under unfavorable community conditions has already been suggested. Worker motivation is related primarily to in-plant factors as Table 11 shows. The yards with the poorest conditions of work are in general those with the lowest morale. If we take as our index of morale the summary question about thinking of quitting the job, there is one exception to this generalization: Shipyard B has too high a number of potential quitters. This is undoubtedly due to the very bad living conditions in this city. It reflects the fact that living conditions do make themselves felt though they are not as important as the in-plant factors. If we take the index of specific dissatisfactions as our measure of morale the relation is again clear with the exception of Shipyard A where the threatened change in work-week was affecting many workers.

Workers, themselves, reflect the primacy of in-plant factors in their reasons for thinking of quitting. All of those who had thought or were thinking of quitting were asked why they felt as they did. In every yard the most frequent reason advanced related to matters within the plant.

Yard	Most frequent reason for quitting
Shipyard A	Poor relations with management
Shipyard C	Poor working conditions
Shipyard B	Poor relations with management
Shipyard D	Poor relations with management
Shipyard E	Dissatisfaction with earning

Summary and Conclusions

A field study of worker morale and the factors related to it was made in five shipyards by intensive interviews with representative samples of workers, by background interviews with key informants representing management and labor, and through observations by field workers. Worker morale varied greatly from shipyard to shipyard and was correlated with the productivity of the yards. Each yard presented its own complex of determinants of morale.

Shipyard B enjoyed good worker motivation in spite of poor community living conditions. Identification with the yard's success in turning out ships plus good earnings made up for the daily frustrations of getting to and from work.

Shipyard A had the advantage of relatively better community conditions for its workers and the advantage of a longer established plant, as well as an excellent earning situation due to a seven-day week. Its workers took pride in producing ships but the morale situation was complicated by rumors of a cutback in work-week and wages and a change in type of craft to be produced. The uncertainty about company policy led to anxiety and insecurity among employees.

At the other end of the scale was Shipyard D struggling under a miserable out-plant situation, with inadequate housing, bad sanitary conditions, and poor recreational facilities. Moreover, the in-plant pattern was on the debit side, with resentment over a cut in work-week and wages, poor production, and poor labor-management relations.

A New England city with unfavorable conditions of housing, climate, and recreation had two yards which presented opposing pictures. Yard C, high in production and morale, had a satisfactory wage scale and good labor-management relations. Yard E with a miserable production record had an unsatisfactory earning situation aggravated by broken promises to the men and the contrasting better treatment in the neighboring Yard C.

The following conclusions derive from the study:

1. Like other social processes, there is a circular causal relation between morale and production. Good production gives men a feeling of accomplishment and leads to increased effort. Low production reduces motivation which in turn leads to reduced productivity. Instead of a one-way causal relation, most social processes show this circular interaction.

2. Worker morale is most directly related to its immediate physical and psychological context. The factors associated with the job itself are of primary importance in keeping the worker well motivated at his work. If production is going well, if his superiors treat him fairly, if promotional opportunities are good, if earnings are satisfactory, if the health and safety conditions in the factory are superior, then job satisfaction will be high. Moreover, under such circumstances most individuals can absorb considerable punishment on the outside and still keep up their work morale. The inference should not be drawn, of course, that management has no stake in good living conditions for workers in the community. Rather the implication of these findings is that management should put its first emphasis upon making the job itself remunerative and psychologically rewarding.

3. In addition to generalizations which apply to more than one worker-morale situation, the significance of any factor for worker-motivation needs to be understood in relation to its specific plant and community background. Remedial programs, especially, should take into account the meaning of specific conditions and measures as they relate to the existing context or field of forces.

2.

GROUP FACTORS IN WORKER PRODUCTIVITY

By George Caspar Homans

In April, 1927, six girls were selected from a large shop department of the Hawthorne works. They were chosen as average workers, neither inexperienced nor expert, and their work consisted of the assembling of telephone relays. A coil, armature, contact springs, and insulators were put together on a fixture and secured in position by means of four machine screws. The operation at that time was being completed at the rate of about five relays in six minutes. This particular operation was chosen for the experiment because the relays were being assembled often enough so that even slight changes in output rate would show themselves at once on the output record. Five of the girls were to do the actual assembly work; the duty of the sixth was to keep the others supplied with parts.

The test room itself was an area divided from the main department by a wooden partition eight feet high. The girls sat in a row on one side of a long workbench. The bench and assembly equipment were identical with those used in the regular department, except in one respect. At the right of each girl's place was a hole in the bench, and into this hole she dropped completed relays. It was the entrance to a chute, in which there was a flapper gate opened by the relay in its passage downward. The opening of the gate closed an electrical circuit which controlled a perforating device, and this in turn recorded the completion of the relay by punching a hole in a tape. The tape moved at the rate of one-quarter of an inch a minute and had space for a separate row of holes for each operator. When punched, it thus constituted a complete output record for each girl for each instant of the day. Such records were kept for five years.

In this experiment, then, as in the earlier illumination experiments, great emphasis was laid on the rate of output. A word of caution is needed here. The Western Electric Company was not immediately interested in increasing output. The experiments were not designed for that purpose. On the other hand, output is easily measured, i.e., it yields precise quantitative data, and experience suggested that it was sensitive to at least some of the conditions under which the employees worked. Output was treated as an index. In short, the nature of the experimental conditions made the emphasis on output inevitable.

From their experience in the illumination experiments, the investigators were well aware that factors other than those experimentally varied might affect the output rate. Therefore arrangements were made that a number of other records should be kept. Unsuitable parts supplied by the firm were noted down, as were assemblies rejected for any reason upon inspection. In this way the type of defect could be known and related to the time of day at which it occurred. Records were kept of weather conditions in general and of temperature and humidity in the test room. Every six weeks each operator was given a medical examination by the company doctor. Every day she was asked to tell how many hours she had spent in bed the night before and, during a part of the experiment,

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what food she had eaten. Besides all these records, which concerned the physical condition of the operators, a log was kept in which were recorded the principal events in the test room hour by hour, including among the entries snatches of conversation between the workers. At first these entries related largely to the physical condition of the operators: how they felt as they worked. Later the ground they covered somewhat widened, and the log ultimately became one of the most important of the test room records. Finally, when the so-called Interviewing Program was instituted at Hawthorne, each of the operators was interviewed several times by an experienced interviewer.

The girls had no supervisor in the ordinary sense, such as they would have had in a regular shop department, but a "test room observer" was placed in the room, whose duty it was to maintain the records, arrange the work, and secure a cooperative spirit on the part of the girls. Later, when the complexity of his work increased, several assistants were assigned to help him.

When the arrangements had been made for the test room, the operators who had been chosen to take part were called in for an interview in the office of the superintendent of the Inspection Branch, who was in general charge of the experiment and of the researches which grew out of it. The superintendent described this interview as follows: "The nature of the test was carefully explained to these girls and they readily consented to take part in it, although they were very shy at the first conference. An invitation to six shop girls to come up to a superintendent's office was naturally rather startling. They were assured that the object of the test was to determine the effect of certain changes in working conditions, such as rest periods, midmorning lunches, and shorter working hours. They were expressly cautioned to work at a comfortable pace, and under no circumstances to try and make a race out of the test." This conference was only the first of many. Whenever any experimental change was planned, the girls were called in, the purpose of the change was explained to them, and their comments were requested. Certain suggested changes which did not meet with their approval were abandoned. They were repeatedly asked, as they were asked in the first interview, not to strain but to work "as they felt."

The experiment was now ready to begin. Put in its simplest terms, the idea of those directing the experiment was that if an output curve was studied for a long enough time under various changes in working conditions, it would be possible to determine which conditions were the most satisfactory. Accordingly, a number of so-called "experimental periods" were arranged. For two weeks before the operators were placed in the test room, a record was kept of the production of each one without her knowledge. In this way the investigators secured a measure of her productive ability while working in the regular department under the usual conditions. This constituted the first experimental period. And for five weeks after the girls entered the test room no change was made in working conditions. Hours remained what they had been before. The investigators felt that this period would be long enough to reveal any changes in output incidental merely to the transfer. This constituted the second experimental period.

The third period involved a change in the method of payment. In the regular department, the girls had been paid according to a scheme of group piecework, the group consisting of a hundred or more employees. Under these circumstances, variations in an individual's total output would not be immediately reflected in her pay, since such variations tended to cancel one another in such a large group. In the test room, the six operators were made a group by themselves. In this way

each girl received an amount more nearly in proportion to her individual effort, and her interests became more closely centered on the experiment. Eight weeks later, the directly experimental changes began. An outline will reveal their general character: Period IV: two rest pauses, each five minutes in length, were established, one occurring in midmorning and the other in the early afternoon. Period V: these rest pauses were lengthened to ten minutes each. Period VI: six five-minute rests were established. Period VII: the company provided each member of the group with a light lunch in the midmorning and another in the midafternoon, accompanied by rest pauses. This arrangement became standard for subsequent Periods VIII through XI. Period VIII: work stopped a half-hour earlier every day—at 4 : 30 P.M. Period IX: work stopped at 4 P.M. Period X: conditions returned to what they were in Period VII. Period XI: a five-day work week was established. Each of these experimental periods lasted several weeks.

Period XI ran through the summer of 1928, a year after the beginning of the experiment. Already the results were not what had been expected. The output curve, which had risen on the whole slowly and steadily throughout the year, was obviously reflecting something other than the responses of the group to the imposed experimental conditions. Even when the total weekly output had fallen off, as it could hardly fail to do in such a period as Period XI, when the group was working only five days a week, daily output continued to rise. Therefore, in accordance with a sound experimental procedure, as a control on what had been done, it was agreed with the consent of the operators that in experimental Period XII a return should be made to the original conditions of work, with no rest pauses, no special lunches, and a full-length working week. This period lasted for twelve weeks. Both daily and weekly output rose to a higher point than ever before: the working day and the working week were both longer. The hourly output rate declined somewhat but it did not approach the level of Period III when similar conditions were in effect.

The conclusions reached after Period XII may be expressed in terms of another observation. Identical conditions of work were repeated in three different experimental periods: Periods VII, X, and XIII. If the assumptions on which the study was based had been correct, that is to say, if the output rate were directly related to the physical conditions of work, the expectation would be that in these three experimental periods there would be some similarity in output. Such was not the case. The only apparent uniformity was that in each experimental period output was higher than in the preceding one. In the Relay Assembly Test Room, as in the previous illumination experiments, something was happening which could not be explained by the experimentally controlled conditions of work.

The question remains:

With what facts, if any, can the changes in the output rate of the operators in the test room be correlated? Here the statements of the girls themselves are of the first importance. Each girl knew that she was producing more in the test room than she ever had in the regular department, and each said that the increase had come about without any conscious effort on her part. It seemed easier to produce at the faster rate in the test room than at the slower rate in the regular department. When questioned further, each girl stated her reasons in slightly different words, but there was uniformity in the answers in two respects. First, the girls liked to work in the test room; "it was fun." Secondly, the new supervisory relation or, as they put it, the absence of the old supervisory control, made it possible for them to work freely without anxiety.

For instance, there was the matter of conversation. In the regular department, conversation was in principle not allowed. In practice it was tolerated if it was carried on in a low tone and did not interfere with work. In the test room an effort was made in the beginning to discourage conversation, though it was soon abandoned. The observer in charge of the experiment was afraid of losing the cooperation of the girls if he insisted too strongly on this point. Talk became common and was often loud and general. Indeed, the conversation of the operators came to occupy an important place in the log. T. N. Whitehead has pointed out that the girls in the test room were far more thoroughly supervised than they ever had been in the regular department. They were watched by an observer of their own, an interested management, and outside experts. The point is that the character and purpose of the supervision were different and were felt to be so.

The operators knew that they were taking part in what was considered an important and interesting experiment. They knew that their work was expected to produce results—they were not sure what results—which would lead to the improvement of the working conditions of their fellow employees. They knew that the eyes of the company were upon them. Whitehead has further pointed out that although the experimental changes might turn out to have no physical significance, their social significance was always favorable. They showed that the management of the company was still interested, that the girls were still part of a valuable piece of research. In the regular department, the girls, like the other employees, were in the position of responding to changes the source and purpose of which were beyond their knowledge. In the test room, they had frequent interviews with the superintendent, a high officer of the company. The reasons for the contemplated experimental changes were explained to them. Their views were consulted and in some instances they were allowed to veto what had been proposed. Professor Mayo has argued that it is idle to speak of an experimental period like Period XII as being in any sense what it purported to be—a return to the original conditions of work. In the meantime, the entire industrial situation of the girls had been reconstructed.

Another factor in what occurred can only be spoken of as the social development of the group itself. When the girls went for the first time to be given a physical examination by the company doctor, someone suggested as a joke that ice cream and cake ought to be served. The company provided them at the next examination, and the custom was kept up for the duration of the experiment. When one of the girls had a birthday, each of the others would bring her a present, and she would respond by offering the group a box of chocolates. Often one of the girls would have some good reason for feeling tired. Then the others would "carry" her. That is, they would agree to work especially fast to make up for the low output expected from her. It is doubtful whether this "carrying" did have any effect, but the important point is the existence of the practice, not its effectiveness. The girls made friends in the test room and went together socially after hours. One of the interesting facts which has appeared from Whitehead's analysis of the output records is that there were times when variations in the output rates of two friends were correlated to a high degree. Their rates varied simultaneously and in the same direction—something, of course, which the girls were not aware of and could not have planned. Also, these correlations were destroyed by such apparently trivial events as a change in the order in which the girls sat at the workbench.

Finally, the group developed leader-

ship and a common purpose. The leader, self-appointed, was an ambitious young Italian girl who entered the test room as a replacement after two of the original members had left. She saw in the experiment a chance for personal distinction and advancement. The common purpose was an increase in the output rate. The girls had been told in the beginning and repeatedly thereafter that they were to work without straining, without trying to make a race of the test, and all the evidence shows that they kept this rule. In fact, they felt that they were working under less pressure than in the regular department. Nevertheless, they knew that the output record was considered the most important of the records of the experiment and was always closely scrutinized. Before long they had committed themselves to a continuous increase in production. In the long run, of course, this ideal was an impossible one, and when the girls found out that it was, the realization was an important element of the change of tone which was noticeable in the second half of the experiment. But for a time they felt that they could achieve the impossible. In brief, the increase in the output rate of the girls in the Relay Assembly Test Room could not be related to any changes in their physical conditions of work, whether experimentally induced or not. It could, however, be related to what can only be spoken of as the development of an organized social group in a peculiar and effective relation with its supervisors.

Many of these conclusions were not worked out in detail until long after the investigators at Hawthorne had lost interest in the Relay Assembly Test Room, but the general meaning of the experiment was clear at least as early as Period XII. A continuous increase in productivity had taken place irrespective of changing physical conditions of work. In the words of a company report made in January 1931 on all the research which had been done up to that date: "Upon analysis, only one thing seemed to show a continuous relationship with this improved output. This was the mental attitude of the operators. From their conversations with each other and their comments to the test observers, it was not only clear that their attitudes were improving but it was evident that this area of employee reactions and feelings was a fruitful field for industrial research."

At this point the attention of the investigators turned sharply from the test room to the regular shop department from which the girls had come. Why was the mental attitude of the girls different in the test room from what it had been in the department? In their conversations with one another and in their comments to the observers, the girls were full of comparisons between the test room and the department, very much to the disadvantage of the latter. They felt relief from some form of constraint, particularly the constraint of supervision. They were exceedingly disparaging about the supervisors in the department, although management felt that the department had particularly good supervisory personnel. These facts suggested that the management of the company really knew very little about the attitudes which employees took toward conditions in the plant and very little also about what constituted good supervisory methods. Such was the atmosphere in which the so-called Interviewing Program, the third phase of the work at Hawthorne, was planned. So far the interests of the investigators had been centered on the question of what were good physical conditions of work. Now they shifted definitely in the direction of a study of human relations.

Finally, the investigators discovered, in the course of the regular interviews, evidence here and there in the plant of a type of behavior which strongly suggested that the workers were banding together informally in order to protect

themselves against practices which they interpreted as a menace to their welfare. This type of behavior manifested itself in (*a*) "straight-line" output, that is, the operators had adopted a standard of what they felt to be a proper day's work and none of them exceeded it by very much; (*b*) a resentment of the wage incentive system under which they worked —in most cases, some form of group piecework; (*c*) expressions which implied that group piecework as a wage incentive plan was not working satisfactorily; (*d*) informal practices by which persons who exceeded the accepted standard, that is, "rate killers," could be punished and "brought into line"; (*e*) informal leadership on the part of individuals who undertook to keep the working group together and enforce its rules; (*f*) feelings of futility with regard to promotions; and (*g*) extreme likes and dislikes toward immediate superiors, according to their attitude toward the behavior of the operators. The investigators felt that this complex of behavior deserved further study.

In view of these considerations, the decision was taken in May, 1931, to assign selected interviewers to particular groups of employees and allow them to interview the employees as often as they felt was necessary. The story of one of these groups is characteristic of the findings reached by this new form of interviewing. The work of the employees was the adjustment of small parts which went into the construction of telephone equipment. The management thought that the adjustment was a complicated piece of work. The interviewer found that it was really quite simple. He felt that anyone could learn it, but that the operators had conspired to put a fence around the job. They took pride in telling how apparatus which no one could make work properly was sent in from the field for adjustment. Then telephone engineers would come in to find out from the operators how the repairs were made. The latter would fool around, doing all sorts of wrong things and taking about two hours to adjust the apparatus, and in this way prevented people on the outside from finding out what they really did. They delighted in telling the interviewer how they were pulling the wool over everybody's eyes. It followed that they were keeping the management in ignorance as to the amount of work they could do. The output of the group, when plotted, was practically a straight line.

Obviously this result could not have been gained without some informal organization, and such organization in fact there was. The group had developed leadership. Whenever an outsider—engineer, inspector, or supervisor—came into the room, one man always dealt with him. Whenever any technical question was raised about the work, this employee answered it. For other purposes, the group had developed a second leader. Whenever a new man came into the group, or a member of the group boosted output beyond what was considered the proper level, this second leader took charge of the situation. The group had, so to speak, one leader for dealing with foreign and one for dealing with domestic affairs. The different supervisors were largely aware of the situation which had developed, but they did not try to do anything about it because in fact they were powerless. Whenever necessary, they themselves dealt with the recognized leaders of the group.

Finally, the investigator found that the group was by no means happy about what it was doing. Its members felt a vague dissatisfaction or unrest, which showed itself in a demand for advancements and transfers or in complaints about their hard luck in being kept on the job. This experience of personal futility could be explained as the result of divided loyalties—divided between the group and the company.

In order to study this kind of problem further, to make a more detailed investi-

gation of social relations in a working group, and to supplement interview material with direct observation of the behavior of employees, the Division of Industrial Research decided to set up a new test room. But the investigators remembered what happened in the former test room and tried to devise an experiment which would not be radically altered by the process of experimentation itself. They chose a group of men—nine wiremen, three soldermen, and two inspectors—engaged in the assembly of terminal banks for use in telephone exchanges, took them out of their regular department and placed them in a special room. Otherwise no change was made in their conditions of work, except that an investigator was installed in the room, whose duty was simply to observe the behavior of the men. In the Relay Assembly Test Room a log had been kept of the principal events of the test. At the beginning it consisted largely of comments made by the workers in answer to questions about their physical condition. Later it came to include a much wider range of entries, which were found to be extremely useful in interpreting the changes in the output rate of the different workers. The work of the observer in the new test room was in effect an expansion of the work of keeping the log in the old one. Finally, an interviewer was assigned to the test room; he was not, however, one of the population of the room but remained outside and interviewed the employees from time to time in the usual manner. No effort was made to get output records other than the ones ordinarily kept in the department from which the group came, since the investigators felt that such a procedure would introduce too large a change from a regular shop situation. In this way the experiment was set up which is referred to as the Bank Wiring Observation Room. It was in existence seven months, from November 1931 to May 1932.

The method of payment is the first aspect of this group which must be described. It was a complicated form of group piecework. The department of which the workers in the observation room were a part was credited with a fixed sum for every unit of equipment it assembled. The amount thus earned on paper by the department every week made up the sum out of which the wages of all the men in the department were paid. Each individual was then assigned an hourly rate of pay, and he was guaranteed this amount in case he did not make at least as much on a piecework basis. The rate was based on a number of factors, including the nature of the job a worker was doing, his efficiency, and his length of service with the company. Records of the output of every worker were kept, and every six months there was a rate revision, the purpose of which was to make the hourly rates of the different workers correspond to their relative efficiency.

The hourly rate of a given employee, multiplied by the number of hours worked by him during the week, was spoken of as the daywork value of the work done by the employee. The daywork values of the work done by all the employees in the department were then added together, and the total thus obtained was subtracted from the total earnings credited to the department for the number of units of equipment assembled. The surplus, divided by the total daywork value, was expressed as a percentage. Each individual's hourly rate was then increased by this percentage, and the resulting hourly earnings figure, multiplied by the number of hours worked, constituted that person's weekly earnings.

Another feature of the system should be mentioned here. Sometimes a stoppage which was beyond the control of the workers took place in the work. For such stoppages the workers were entitled to claim time out, being paid at

their regular hourly rates for this time. This was called the "daywork allowance claim." The reason why the employees were paid their hourly rate for such time and not their average hourly wages was a simple one. The system was supposed to prevent stalling. The employees could earn more by working than they could by taking time out. As a matter of fact, there was no good definition of what constituted a stoppage which was beyond the control of the workers. All stoppages were more or less within their control. But this circumstance was supposed to make no difference in the working of the system, since the assumption was that in any case the workers, pursuing their economic interests, would be anxious to keep stoppages at a minimum.

This system of payment was a complicated one, but it is obvious that there was a good logical reason for every one of its features. An individual's earnings would be affected by changes in his rate or in his output and by changes in the output of the group as a whole. The only way in which the group as a whole could increase its earnings was by increasing its total output. It is obvious also that the experts who designed the system made certain implicit assumptions about the behavior of human beings, or at least the behavior of workers in a large American factory. They assumed that every employee would pursue his economic interest by trying to increase not only his own output but the output of every other person in the group. The group as a whole would act to prevent slacking by any of its members. One possibility, for instance, was that by a few weeks' hard work an employee could establish a high rate for himself. Then he could slack up and be paid out of all proportion with the amount he actually contributed to the wages of the group. Under these circumstances, the other employees were expected to bring pressure to bear to make him work harder.

Such was the way in which the wage incentive scheme ought to have worked. The next question is how it actually did work. At first the workers were naturally suspicious of the observer, but when they got used to him and found that nothing out of the ordinary happened as a result of his presence in the room, they came to take him for granted. The best evidence that the employees were not distrustful of the observer is that they were willing to talk freely to him about what they were doing, even when what they were doing was not strictly in accord with what the company expected. Conversation would die down when the group chief entered the room, and when the foreman or the assistant foreman entered everyone became serious. But no embarrassment was felt at the presence of the observer. To avoid misunderstanding, it is important to point out that the observer was in no sense a spy. The employees were deliberately and obviously separated from their regular department. The observer did not, and could not, pass himself off as one of them. And if only from the fact that a special interviewer was assigned to them, the members of the group knew they were under investigation.

The findings reached by the observer were more detailed but in general character the same as those which had emerged from the early interviews of other groups. Among the employees in the observation room there was a notion of a proper day's work. They felt that if they had wired two equipments a day they had done about the right amount. Most of the work was done in the morning. As soon as the employees felt sure of being able to finish what they considered enough for the day, they slacked off. This slacking off was naturally more marked among the faster than among the slower workmen.

As a result, the output graph from week to week tended to be a straight line. The employees resorted to two further practices in order to make sure that it

should remain so. They reported more or less output than they performed and they claimed more daywork allowances than they were entitled to. At the end of the day, the observer would make an actual count of the number of connections wired—something which was not done by the supervisors—and he found that the men would report to the group chief sometimes more and sometimes less work than they actually had accomplished. At the end of the period of observation, two men had completed more than they ever had reported, but on the whole the error was in the opposite direction. The theory of the employees was that excess work produced on one day should be saved and applied to a deficiency on another day. The other way of keeping the output steady was to claim excessive daywork allowance. The employees saw that the more daywork they were allowed, the less output they would have to maintain in order to keep the average hourly output rate steady. The claims for daywork allowance were reported by the men to their group chief, and he, as will be seen, was in no position to make any check. These practices had two results. In the first place, the departmental efficiency records did not represent true efficiency, and therefore decisions as to grading were subject to errors of considerable importance. In the second place, the group chief was placed in a distinctly awkward position.

The findings of the observer were confirmed by tests which were made as a part of the investigation. Tests of intelligence, finger dexterity, and other skills were given to the workers in the room, and the results of the tests were studied in order to discover whether there was any correlation between output on the one hand and earnings, intelligence, or finger dexterity on the other. The studies showed that there was not. The output was apparently not reflecting the native intelligence or dexterity of the members of the group.

Obviously the wage incentive scheme was not working in the way it was expected to work. The next question is why it was not working. In this connection, the observer reported that the group had developed an informal social organization, such as had been revealed by earlier investigations. The foreman who selected the employees taking part in the Bank Wiring Observation Room was cooperative and had worked with the investigators before. They asked him to produce a normal group. The men he chose all came out of the same regular shop department, but they had not been closely associated in their work there. Nevertheless, as soon as they were thrown together in the observation room, friendships sprang up and soon two well-defined cliques were formed. The division into cliques showed itself in a number of ways: in mutual exclusiveness, in differences in the games played during off-hours, and so forth.

What is important here is not what divided the men in the observation room but what they had in common. They shared a common body of sentiments. A person should not turn out too much work. If he did, he was a "rate-buster." The theory was that if an excessive amount of work was turned out, the management would lower the piecework rate so that the employees would be in the position of doing more work for approximately the same pay. On the other hand, a person should not turn out too little work. If he did, he was a "chiseler"; that is, he was getting paid for work he did not do. A person should say nothing which would injure a fellow member of the group. If he did, he was a "squealer." Finally, no member of the group should act officiously.

The working group had also developed methods of enforcing respect for its attitudes. The experts who devised the wage incentive scheme assumed that the group would bring pressure to bear upon the slower workers to make them work faster

and so increase the earnings of the group. In point of fact, something like the opposite occurred. The employees brought pressure to bear not upon the slower workers but upon the faster ones, the very ones who contributed most to the earnings of the group. The pressure was brought to bear in various ways. One of them was "binging." If one of the employees did something which was not considered quite proper, one of his fellow workers had the right to "bing" him. Binging consisted of hitting him a stiff blow on the upper arm. The person who was struck usually took the blow without protest and did not strike back. Obviously the virtue of binging as punishment did not lie in the physical hurt given to the worker but in the mental hurt that came from knowing that the group disapproved of what he had done. Other practices which naturally served the same end were sarcasm and the use of invectives. If a person turned out too much work, he was called names, such as "Speed King" or "The Slave."

It is worth while pointing out that the output of the group was not considered low. If it had been, some action might have been taken, but in point of fact it was perfectly satisfactory to the management. It was simply not so high as it would have been if fatigue and skill had been the only limiting factors.

In the matter of wage incentives, the actual situation was quite different from the assumptions made by the experts. Other activities were out of line in the same way. The wiremen and the solderers did not stick to their jobs; they frequently traded them. This was forbidden, on the theory that each employee ought to do his own work because he was more skilled in that work. There was also much informal helping of one man by others. In fact, the observation of this practice was one means of determining the cliques into which the group was divided. A great many things, in short, were going on in the observation room which ought not to have been going on. For this reason it was important that no one should "squeal" on the men.

A group chief was in immediate charge of the employees. He had to see that they were supplied with parts and that they conformed to the rules and standards of the work. He could reprimand them for misbehavior or poor performance. He transmitted orders to the men and brought their requests before the proper authorities. He was also responsible for reporting to the foreman all facts which ought to come to his attention. The behavior of the employees put him in an awkward position. He was perfectly well aware of the devices by which they maintained their production at a constant level. But he was able to do very little to bring about a change. For instance, there was the matter of claims for daywork allowance. Such claims were supposed to be based on stoppages beyond the control of the workers, but there was no good definition of what constituted such stoppages. The men had a number of possible excuses for claiming daywork allowance: defective materials, poor and slow work on the part of other employees, and so forth. If the group chief checked up on one type of claim, the workers could shift to another. In order to decide whether or not a particular claim was justified, he would have to stand over the group all day with a stop watch. He did not have time to do that, and in any case refusal to honor the employees' claims would imply doubt of their integrity and would arouse their hostility. The group chief was a representative of management and was supposed to look after its interests. He ought to have put a stop to these practices and reported them to the foreman. But if he did so, he would, to use the words of a short account of the observation room by Roethlisberger and Dickson, "lose sympathetic control of his men, and his duties as supervisor would become much

more difficult."[1] He had to associate with the employees from day to day and from hour to hour. His task would become impossible if he had to fight a running fight with them. Placed in this situation, he chose to side with the men and report unchanged their claims for daywork. In fact there was very little else he could do, even if he wished. Moreover he was in a position to protect himself in case of trouble. The employees always had to give him a reason for any daywork claims they might make, and he entered the claims in a private record book. If anyone ever asked why so much daywork was being claimed, he could throw the blame wherever he wished. He could assert that materials had been defective or he could blame the inspectors, who were members of an outside organization. In still another respect, then, the Bank Wiring Observation Room group was not behaving as the logic of management assumed that it would behave.

Restriction of output is a common phenomenon of industrial plants. It is usually explained as a highly logical reaction of the workers. They have increased their output, whereupon their wage rates for piecework have been reduced. They are doing more work for the same pay. They restrict their output in order to avoid a repetition of this experience. Perhaps this explanation holds good in some cases, but the findings of the Bank Wiring Observation Room suggest that it is too simple. The workers in the room were obsessed with the idea that they ought to hold their production level "even" from week to week, but they were vague as to what would happen if they did not. They said that "someone" would "get them." If they turned out an unusually high output one week, that record would be taken thereafter as an example of what they coul do if they tried, and they would b "bawled out" if they did not keep u to it. As a matter of fact, none of th men in the room had ever experienced reduction of wage rates. What is more as Roethlisberger and Dickson point out "changes in piece rates occur most fre quently where there is a change in manu facturing process, and changes in manu facturing process are made by engineer whose chief function is to reduce uni cost wherever the saving will justify th change. In some instances, changes occu irrespective of direct labor cost. More over, where labor is a substantial ele ment, reduction of output tends to in crease unit costs and instead of wardin off a change in the piece rate may actu ally induce one."

What happened in the observatio room could not be described as a logica reaction of the employees to the experi ence of rate reduction. They had in fac had no such experience. On the othe hand, the investigators found that i could be described as a conflict betwee the technical organization of the plan and its social organization. By technica organization the investigators meant th plan, written or unwritten, according t which the Hawthorne plant was sup posed to operate, and the agencies whic gave effect to that plan. The plan in cluded explicit rules as to how the me were to be paid, how they were to d their work, what their relations wit their supervisors ought to be. It include also implicit assumptions on which th rules were based, one of the assumption being that men working in the plan would on the whole act so as to furthe their economic interests. It is worth while pointing out that this assumptio was in fact implicit, that the experts wh devised the technical organization acte

[1] F. J. Roethlisberger and W. J. Dickson, "Management and the Worker," *Business Researc Studies, No.* 9 (Cambridge: Harvard Business School, Division of Research, 1939). (All quotatior relating to the Western Electric researches are from this study as well as from the book of the sam title by the same authors)

upon the assumption without ever stating it in so many words.

There existed also an actual social situation within the plant: groups of men, who were associated with one another, held common sentiments and had certain relations with other groups and other men. To some extent this social organization was identical with the technical plan and to some extent it was not. For instance, the employees were paid according to group payment plans, but the groups concerned did not behave as the planners expected them to behave.

The investigators considered the relations between the technical organization and the social. A certain type of behavior is expected of the higher levels of management. Their success is dependent on their being able to devise and institute rapid changes. Roethlisberger and Dickson describe what happens in the following terms: "Management is constantly making mechanical improvements and instituting changes designed to reduce costs or improve the quality of the product. It is constantly seeking new ways and new combinations for increasing efficiency, whether in designing a new machine, instituting a new method of control, or logically organizing itself in a new way." The assumption has often been made that these changes are designed to force the employee to do more work for less money. As a matter of fact, many of them have just the opposite purpose: to improve the conditions of work and enable the employee to earn higher wages. The important point here, however, is not the purpose of the changes but the way in which they are carried out and accepted.

Once the responsible officer has decided that a certain change ought to be made, he gives an order, and this order is transmitted "down the line," appropriate action being taken at every level. The question in which the investigators were interested was this: What happens when the order reaches the men who are actually doing the manual work? Roethlisberger and Dickson made the following observations: "The worker occupies a unique position in the social organization. He is at the bottom of a highly stratified organization. He is always in the position of having to accommodate himself to changes which he does not originate. Although he participates least in the technical organization, he bears the brunt of most of its activities." It is he, more than anyone, who is affected by the decisions of management, yet in the nature of things he is unable to share management's preoccupations, and management does little to convince him that what he considers important is being treated as important at the top—a fact which is not surprising, since there is no adequate way of transmitting to management an understanding of the considerations which seem important at the work level. There is something like a failure of communication in both directions—upward and downward.

The worker is not only "asked to accommodate himself to changes which he does not initiate, but also many of the changes deprive him of those very things which give meaning and significance to his work." The modern industrial worker is not the handicraftsman of the medieval guild. Nevertheless, the two have much in common. The industrial worker develops his own ways of doing his job, his own traditions of skill, his own satisfactions in living up to his standards. The spirit in which he adopts his own innovations is quite different from that in which he adopts those of management. Furthermore, he does not do his work as an isolated human being, but always as a member of a group, united either through actual cooperation on the job or through association in friendship. One of the most important general findings of the Western Electric researches is the fact that such groups are continually being formed among industrial workers, and that the groups develop codes and

loyalties which govern the relations of the members to one another. Though these codes can be quickly destroyed, they are not formed in a moment. They are the product of continued, routine interaction between men. "Constant interference with such codes is bound to lead to feelings of frustration, to an irrational exasperation with technical change in any form, and ultimately to the formation of a type of employee organization such as we have described—a system of practices and beliefs in opposition to the technical organization."

The Bank Wiring Observation Room seemed to show that action taken in accordance with the technical organization tended to break up, through continual change, the routines and human associations which gave work its value. The behavior of the employees could be described as an effort to protect themselves against such changes, to give management the least possible opportunity of interfering with them. When they said that if they increased their output, "something" was likely to happen, a process of this sort was going on in their minds. But the process was not a conscious one. It is important to point out that the protective function of informal organization was not a product of deliberate planning. It was more in the nature of an automatic response. The curious thing is that, as Professor Mayo pointed out to the Committee, these informal organizations much resembled formally organized labor unions, although the employees would not have recognized the fact.

Roethlisberger and Dickson summarize as follows the results of the intensive study of small groups of employees: "According to our analysis the uniformity of behavior manifested by these groups was the outcome of a disparity in the rates of change possible in the technical organization, on the one hand, and in the social organization, on the other. The social sentiments and customs of work of the employees were unable to accommodate themselves to the rapid technical innovations introduced. The result was to incite a blind resistance to all innovations and to provoke the formation of a social organization at a lower level in opposition to the technical organization."

It is curious how, at all points, the Relay Assembly Test Room and the Bank Wiring Observation Room form a contrast. In the former, the girls said that they felt free from the pressure of supervision, although as a matter of fact they were far more thoroughly supervised than they ever had been in their regular department. In the latter, the men were afraid of supervision and acted so as to nullify it. The Bank Wiremen were in the position of having to respond to technical changes which they did not originate. The Relay Assemblers had periodic conferences with the superintendent. They were told what experimental changes were contemplated; their views were canvassed, and in some instances they were allowed to veto what had been proposed. They were part of an experiment which they felt was interesting and important. Both groups developed an informal social organization, but while the Bank Wiremen were organized in opposition to management, the Relay Assemblers were organized in cooperation with management in the pursuit of a common purpose. Finally, the responses of the two groups to their industrial situation were, on the one hand, restriction of output and, on the other, steady and welcome increase of output. These contrasts carry their own lesson.

3.

LABOR AND MANAGEMENT RESPONSIBILITY FOR PRODUCTIVE EFFICIENCY

By Clinton S. Golden and H. J. Ruttenberg

The problem to which we now turn our attention is how to reconcile the authority of management to the natural desires of workers for a voice, directly and effectively, in determining how production can be increased, wastes eliminated, and costs of production otherwise reduced.

Union-management cooperation to reduce costs, eliminate wastes, increase productive efficiency, and improve quality represents a practical program that provides workers with effective direct participation in the creative phases of management.

Labor unions have their origin in the desire of workers for self-protection—against arbitrary acts of management in layoffs, promotions, wage distributions, speed-ups, and other matters that vitally affect them. Their original purpose is defensive and their psychology is negative; unions resist practices of management deemed injurious to their members' welfare and oppose, or at least question, such acts and proposals of management. This essentially negative approach, about which management complains so bitterly, can be converted into a positive one by the simple twin devices of assuring the union's security and providing workers with participation in the matters against which, in the first instance, they organized. One of these is the speed-up.

Making human beings work beyond endurance is a means that does not justify its end. The cost of the increased production in human drudgery, unhappiness, illness, and deaths is far too great from either an economic or a social viewpoint. With this organized labor and management are in unanimous agreement; both oppose the speed-up. However, it is more than a physical problem; the speed-up is a psychological problem. The term is used by workers in a derogatory sense, as an epithet, and it is attached to managerial practices that do not necessarily overtax their physical, mental, or nervous endurance. In fact, certain union leaders whose viewpoint is that the interests of workers and management, in whole or in part, are irreconcilable denounce SWOC's* union-management cooperation plan as a "vicious speed-up." Their prejudice warrants them in denouncing the plan as a scheme to make workers toil harder and, of course, further enrich the owners of industry. This, to be sure, is what the speed-up is in unregulated practice. Management in a wire mill, for example, installs new dies which enable it to increase the speed of the wire-drawing machines 33 percent and, at the same time, cuts the tonnage-wage rates of the wire drawers so that their earnings rise only 7 percent. They go on strike against the "speed-up and cut in wages." Contrast this with the regulated speed-up in a rail mill under union-management cooperation.

Rail output was ten tons an hour when the union and management set up their cooperative plan. Gradually output rose to eleven, then to thirteen, and finally to fifteen tons per hour—an increase of 50 percent. It was not the result of arbitrary action of management. The men helped

From C. S. Golden and H. J. Ruttenberg, *The Dynamics of Industrial Democracy* (New York: Harper & Brothers, 1942). Reprinted by permission of the authors and the publisher.

*SWOC is the abbreviation of Steel Workers' Organizing Committee.

management achieve this speed-up; actually, they were mainly responsible for it. Though they are producing 50 percent more than before, their work is not any harder—many of the men say it is easier now. The rails come through the mill regularly, lost time is reduced to a minimum, mill changes are not so frequent, and as a consequence the men do not have long periods of idleness followed by an hour or two of hectic work to catch up. They did not strike against this speed-up, because it was not arbitrarily imposed upon them by management. They did not strike against a wage cut, since they shared in the benefits of increased output to their satisfaction. What accounts for the difference between these wire drawers and rail-mill workers? Actually the 33 percent increase in production did not tax the wire drawers beyond physical endurance. Yet they struck against the increase and tagged the two most effective union castigations on it, "speed-up" and "wage cut." SWOC corrected the wage-cut phase leading up to the strike; their earnings were raised 1 percent for each 2 percent increase in output. But the actual speed-up factors leading up to the strike could not be solved, not because of physical reasons but for psychological ones. If it had been for physical reasons, the union and management could easily have worked out production standards that would not overtax the wire drawers' endurance. The difference between the wire drawers and rail-mill workers is one of mental attitude.

Fatigue is closely associated with mental attitude. Take an example from everyday life. A young frustrated man is working at his bench, nervously looking at his watch every two minutes, impatient with the slow passage of time until the quitting bell rings. It rings. He is off to the washroom, changes into clean street clothes, runs to his auto, and starts off to pick up a buddy. They have their bags already packed in the auto, the tank filled with gas, and without delay take to the road for a three-hundred-mile-distant point to have a good time for the week end. The owner of the auto drives all the way, at an average of fifty-five miles an hour. When he arrives he is naturally tired, but not exhausted; in many ways he is more relaxed than before he left his workbench. Contrast his physical, mental, and nervous condition with a presumed experience a week later. His buddy, who is waiting in the auto for him at quitting time, puts a gun to his ribs and forces him to drive to the same point at an average of fifty-five miles an hour. They arrive, but the driver is neither refreshed nor relaxed as he was the previous week; he is exhausted, a nervous wreck. One week this driving feat is a pleasure; the next week it is a speed-up of the most vicious sort. The physical requirements of the two feats were the same, but not the mental or nervous ones.

Thus there are two fundamental differences between the speed-up in its conventional sense and the speed-up as a result of union-management cooperation. Workers participate with management in the latter form of speed-up, for it is something of their own creation; and, secondly, they share equitably in its fruits. The wire drawers, in our judgment, would not have characterized the 33 percent increase in production as a speed-up if it had been either the result of consultation with management or the expression of their own ingenuity—preferably, of course, the latter. This speed-up likewise would not have been described as a "wage cut" if, in the first instance, management had shared the fruits of it equitably with the wire drawers as it did after the strike. Admittedly the difference between an increase in production representing a speed-up to a group of workers or a satisfying creative experience is an intangible one, but one that is not beyond the practical reach of management and unions. And the term

"speed-up" is not irrevocably consigned to the union vocabulary of cuss words. The title of Philip Murray's plan to achieve total steel output, through the participation of SWOC on an industry-wide and national basis (which we discuss later), is "How to Speed Up Steel Production."

Union-management cooperation is an integral part of the basic policies of the Steel Workers Organizing Committee enunciated in its official handbook *Production Problems*, the substance of which, as summarized by the *Reader's Digest*,[1] is:

> The steel workers' union stands for the progressive policy of security and plenty for all. In order for all to have more, we need to produce and distribute more, not less. Greater production, guided by efficient management, means lower cost per unit. Lower costs tend toward low prices. This enables our people to buy and use more goods. This, in turn, makes possible putting our unemployed back to work. With little or no unemployment, the bargaining power to labor is increased, resulting in higher wages. Higher wages coupled with lower prices mean a higher standard of living.
>
> When asked for a wage increase or a reduction of hours, an employer may say, "I can't afford it; it would put me out of business." What then? Is the union to try to enforce its demands? Or is it simply to do nothing?
>
> There is something that often can be done about it, something that has been done in dozens of cases. Suppose the union could say to the employer, "We will show you a way to save money enough to grant the wage increase," or, "You can make changes in working conditions that we want, and yet have lower costs than you do now." If the union could say such things, it would have additional bargaining power. It would have something valuable to offer the employer in exchange for what it wants.
>
> Almost any shop or mill is full of wasteful practices. There are many workers in any establishment who could off-hand give the management hints as to how it could save money and put out a better and cheaper product. If a systematic study is made, a great many unsuspected ways of making economies can often be discovered. . . . It may take time to educate most employers to such [a program]. . . . But nothing is to be gained by trying union-management cooperation before both sides are ready to accept it in good faith.

One of the pitfalls confronting union-management cooperation in the railroad industry and in textiles was the insecurity of the union. Each firm engaging in cooperation with SWOC has been successful, and one of the reasons is that this pitfall is eliminated by the insistence of SWOC on a union-shop contract. After this condition is met, SWOC insists upon the fundamental principles set forth in the following agreement, because the absence of these principles, in whole or in part, constituted some of the shortcomings of similar ventures in other industries.

PREAMBLE

It is herewith declared to be the joint objective of the union and the company to increase efficiency, eliminate wastes, and otherwise reduce costs of production for the mutual benefit of all parties dependent upon the ____ Company for a livelihood.

PROCEDURE

There shall be created a Research and Planning Committee consisting of five representatives of management and five representatives of the union.

This committee shall meet semi-monthly. Minutes shall be kept of all meetings of the committee and shall be available for the examination of all interested parties.

The duties of the committee shall be to solicit from the employees of all ranks suggestions designed to increase efficiency, reduce production costs, and eliminate wastes; to review them; to adopt those that are practical and feasible; and to explain to the employees whose suggestions are not adopted the reason or reasons why their suggestions are not accepted.

[1] October 1938, p. 16.

The management and the union shall share equitably any benefits so obtained through regularized employment, better working conditions, increased earnings, lower costs, and other feasible ways.

Nobody is to lose his job as a result of any improvement that is installed. If ways are discovered to do more work with less labor, they are to be put in gradually, and then only with the consent of the union and the management. They shall be installed in such a way that no discharges are necessary —as for instance at a time when sales and output are increasing, or in the regular labor turn-over.

The work of the committee shall be truly joint in every respect. All facts and plans affecting the cost of production are to be revealed to the Research and Planning Committee, and its understanding and consent shall be obtained at every step.

The committee shall be guided in its general work by the basic principles outlined in the handbook, *Production Problems*, namely:

1. Standard costs for each department, or where necessary for each operation, shall be devised for the purpose of measuring the effects of the committee's work on reducing operating expenses.
2. The handling of grievances shall be distinct from the work of the committee, and the committee, or any of its members, will in no way entertain grievances or other matters not connected with cost reduction.

Management opposes this agreement primarily on the ground that it is an encroachment upon its prerogatives. A well-known consulting engineer, Morris L. Cooke,[1] does not think this objection is sound for the following reasons:

> Management today may include thousands of employees—all agents of the stockholders—ranging from the president . . . down to the lowliest gang boss. . . . It has been a treasured theory that those of us who have the authority—by virtue of title, salary, or what have you—to make decisions, actually do make them; whereas, as a matter of fact, most well-rendered decisions grow wholly out of the assembled facts. When these preliminaries to a decision have been well conducted, usually only one wise decision is possible. The making of decisions, of course, is not a function reserved for the top. They are being made constantly at all levels in an industrial organization.
>
> The workers—the organized workers—want and should have an opportunity to contribute their ideas and data and have them considered with any others. If the management begins to exclude suggestions, where can the line be drawn? Who wants to do a thing in the wrong way if a better one can be discovered? In the great majority of cases suggestions are not made to annoy, but because of a wholly commendable human instinct to be useful. The sad fact is that when given the widest opportunity to suggest and therefore broaden one's field of usefulness only a relatively small percentage will avail themselves of the opportunity. For generations the workers have been told to do as they were told and only that. Workers absolutely need the stimulus and backing of a labor organization if they are to make suggestions.

Obviously the job of management in charge of operating intricate business enterprises today is to secure from each individual, from laborer to board chairman, the best service of which he is capable, mentally as well as physically. Union-management cooperation is an aid in this job. The control of the business remains in the hands of management. The union exercises only such authority as may be necessary to discharge its responsibilities. "I can go away for a couple of weeks and expect to return and find everything in shape," the president of a company practicing union-management cooperation told us, "because the union and the plant management are a kind of natural check and balance on each other, like the Supreme Court on

[1] "Public Policy and Labor's Role in Industry," address delivered before Institute of Public Affairs, University of Virginia, June 27, 1941.

Congress." In no way does management surrender any of its prerogatives, since nothing can be done without the consent of both parties. Instead, the scope of its prerogatives is enlarged. The freedom of management to make technical or other changes under ordinary circumstances, for instance, is subject to the approval of its employees, who may strike against a change they dislike. Union-management cooperation actually makes this management freedom more real by securing, through understanding, the approval of workers to specific changes in advance of their installation. The objective of the program is to develop machinery that provides workers with creative participation in the productive process, and in actual practice the prerogatives of management have become more secure though, to be sure, less sacred and exclusive.

XI

Social Class

1.

THE CLASS SYSTEM OF THE WHITE CASTE

By Allison Davis, Burleigh B. Gardner, and Mary R. Gardner

The "caste line" defines a social gulf across which Negroes may not pass either through marriage or those other intimacies which Old City calls "social equality." A ritual reminder is omnipresent in all relationships that there are two separate castes—a superordinate white group and a subordinate Negro group. Within each of these separate social worlds there are other divisions: families, religious groups, associations, and a system of social classes.[1]

The most fundamental of these divisions within each caste is that of social class; and the researchers, both white and Negro, were initiated into the intricacies of class behavior at the same time that they were being taught how to act toward persons of the opposite caste. Whether it was a matter of accepting an invitation to a party, deciding to visit a family, or planning to attend a church, the participant-observers, who had been "adopted" by people of relatively high social status within their respective castes, were advised upon the important matter of "who" and "where." Certain people were to be approached, not as equals, but as subordinates. There were places where one "could not afford to be seen" having a "good time," or even worshipping, without loss of status unless it was for purposes of research.

There were many clews to assist in the "placing" of people within broad limits, some easily observable, such as peculiarities of speech, type of clothing worn, the manner of drinking and "carrying" liquor, or occupation. (Among Negroes there was the added factor of color evaluation.) Other criteria were far more subtle—genealogies and inner thoughts—which were ascertainable only after prolonged acquaintance with the society. "Stratifying" the inhabitants of Old City was, thus, one of the major research problems, that is, finding out the values cherished by people of varying circumstances, checking their behavior against their beliefs about status, and finding a systematic way of describing the class structure of the society.

Social Stratification

As one becomes acquainted with the white people of Old City, he soon realizes

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[1] As here used, a "social class" is to be thought of as the largest group of people whose members have intimate access to one another. A class is composed of families and social cliques. The interrelationships between these families and cliques, in such informal activities as visiting, dances, receptions, teas, and larger informal affairs, constitute the structure of a social class. A person is a member of that social class with which most of his participations, of this intimate kind, occur.

that they are continually classifying themselves and others. There are "Negroes" and "whites"—the caste groups—a relatively simple dichotomy. There are also "leading families," "fine old families," "the four hundred," "the society crowd," "plain people," "nice, respectable people," "good people, but nobody," "po' whites," "red necks," etc.—all terms used to refer to different groups within the white caste. Not only do the whites frequently refer to these subdivisions within their own caste group, but they do so in such a manner as to indicate that they think in terms of a social hierarchy with some people at the "top," some at the "bottom"; with some people "equal" to themselves, and others "above" or "below" them. There are recurrent expressions such as: "He isn't our social equal," "She isn't our kind," "They are just nobody," "Those folk are the way-high-ups," "They're nothing but white trash!" "Oh, they're plain people like us." These expressions refer not only to individuals but also to groups, so that one may speak of superordinate and subordinate groups within the white society. And, most important of all, people tend to act in conformity with these conceptions of their "place" and the social position of others in the society.

When the individuals and groups so designated are studied, striking differences between them with regard to family relations, recreational behavior, standards of living, occupation and income, education, and other traits are immediately apparent. On the basis of these differences, it is possible to define the social classes within the white society and to describe them in detail. It was soon evident that people at all levels were thinking in terms of, and often referring to, three broad social classes—"upper," "middle," and "lower"—although, when designating particular individuals, there were divergences of opinion as to their social position. There was some difference of opinion, too, as to the things that made one upper, middle, or lower; but an analysis of the relative social positions of the informants showed that these variations in conceptions of class status were, themselves, related to the social position of the informant. Thus, a "po' white," as defined by persons of the higher classes, conceived of the total structure in a somewhat different manner from an upper-class planter. In other words, the social perspective varied with the social position of the individual. People in the same social positions agreed, in the main, however, on the traits which characterized the classes, although the class traits did not apply to everyone within a class in absolute fashion. Thus, a member of a group defined by consensus as "superior" might have a few characteristics in common with a person of an "inferior" group; but when each group was considered as a whole, the differences were large and significant. Thus, "the society crowd," as a group, owns more property than the "po' whites," although some "society folks" own none at all; the "poor, but respectable" people, in the aggregate, are more church-minded than "trash," though some are not affiliated with churches.

The researchers were able to describe the structure of the society by interviewing a large number of informants drawn from various occupational, associational, and other status groups who "placed" individuals and stated their conceptions of class criteria. The observers were also alert to "off-the-record" remarks and to behavior in public places and in crisis situations, in order to ascertain the bearers of prestige, the wielders of power, and the persons who associated together on various occasions. The resulting picture of the society is that of a class system in operation, with a description of the way it appears to the people within it.

While generalized conceptions of the class structure were readily obtainable

from interviewing, a detailed study of class characteristics depended upon a method of determining the social position of specific individuals. The first step was to establish a series of individuals distributed from the "top" of the society to the "bottom." This was done through interviewing, since almost any member of the society could point to some other individuals or groups whom he considered at the very top, at the very bottom, or "in between." Interviewing and observing the people who were thus placed resulted in the identification of a group of individuals who considered themselves either superordinate, subordinate, or equal in relationship to one another. Continuous interviewing of these informants made possible a detailed study of their ideology and behavior. Wide discrepancies in placement were studied as special cases, with the purpose of relating them to the system of relationships which was gradually emerging, and of accounting for the differing opinions of their social position. Thus, over a period of eighteen months, interviewing, coupled with observation of overt behavior, permitted the researchers to establish with certainty a sample of the personnel of the different social classes.

After identifying these individuals within the classes, it was possible to study their relationships and characteristics in detail and to correlate traits such as income, property, education, and church and associational memberships with social position and general behavior. An additional check was provided by interviewing for the "values" which people attributed to various types of behavior and class traits when they talked about them. It was thus possible to relate ideology to social class.

Because of the limitations of time, it was impossible to stratify every individual in the society by the interview-observation technique; but once the characteristics of the known individuals had been determined, criteria were available for placing any individual about whom some important facts were available.

Thus, when a person's participation could not be checked, if some pertinent facts about his job, his family, his education, and his children were known, one could state the participation potentialities which his social personality bore.

On the basis of the attitudes of many informants of various social positions, together with observations of many kinds of social behavior, the researchers concluded that the three main class divisions recognized by the society could be objectively described. Each of these was characterized by its particular behavior pattern and by a distinctive ideology. Closer study revealed the existence of subclasses within each of these three larger groups, and these are referred to in this study as the "upper-upper class," "lower-upper class," "upper-middle class," "lower-middle class," "upper-lower class," and the "lower-lower class." We shall examine, first, the conceptions of class which each of these groups holds, for the very way in which people conceive of the class divisions varies with their social position.

Class Perspective and the Class Structure

The Upper-upper Class. It was evident from the outset that certain persons were at the very top of the social hierarchy. They were accorded deference in nearly all types of relationships; people were anxious to associate with them; they belonged to the exclusive churches; their names were sought for patron's lists; they lived in imposing mansions inherited from Old City's "antebellum past" (or at least their parents did); and, on ritual occasions of high import, they dominated the scene and tended to organize community behavior. They were, without doubt, in almost everyone's eyes, members of the "upper-upper class." Neither whites nor Negroes questioned their position even when they re-

sented it; and resentment, itself, tended to dissolve when they were functioning as symbols of the total community on such occasions as the annual Historical Week, when visitors from the entire nation came to Old City. It was this upper-upper class which made the finest distinctions when ranking or "stratifying" other people.

Members of this highest status group recognize five class divisions in the society (see Fig. 1). They visualize themselves at the top of the society, an "*old* aristocracy" whose superordination has its origin and stability in "time." They consider themselves the highest group in the society by inheritance, because, as they phrase it: "Our families have always been the best people." Immediately below them on the social scale the members of this class point out another group, which has been designated the "lower-upper class." These are people with whom the "old aristocracy" is willing to participate in informal relationships, whom they know intimately and recognize as fundamentally no different from themselves in income, consumption standards, education, intellectual interests, and general behavior pattern. But they are not "*old* aristocracy"; they haven't been upper class long enough. An analysis of these two upper groups indicates that the division between them is reflected hardly at all by differences in overt behavior or other characteristics. It is a subjective division which finds objective expression only in certain very intimate situations when antagonisms between the two groups are verbalized.

Beneath the lower uppers, the upper uppers see the "nice, respectable people" (the upper-middle class) who have "never been prominent at all." They know these people by name, speak to them on the street, and may converse with them at church or associational meetings; but they do not participate with them at social affairs of the more intimate kinds.

The upper-middle class is contrasted with the "good people" who are "just nobody" (the lower-middle class). With the lower-middle class, the upper uppers have only formal and definitely limited relations, usually economic in nature, such as those of employer-to-employee or merchant-to-customer. The type of behavior in such relationships is explicitly delimited; and, in general, upper-upper individuals resent the social mobility of lower-middle-class persons, probably because such a movement involves a change in these relatively impersonal economic relationships and the corresponding traditional behavior pattern.

Finally, at the very bottom of the society are the people whom the upper uppers call the "working class," "the poorer class," or just "po' white." They have little contact with this group, tending to ignore their existence. They make no distinction between tenant-farmers, fishermen, factory workers, as these people, themselves, do. Nor do they distinguish between other variant behavior patterns within this lower-class world.

The Lower-upper Class. The lower uppers, whom the upper uppers call "aristocracy, but not *old*," make the same general distinctions between social groups. They do not emphasize the distinction between themselves and the upper uppers so much as the upper uppers do, however. This may be attributed to the fact that most of the members of this group have, during their lifetime, been socially mobile, and they have moved into the upper class from the upper-middle group. Consequently, while they recognize themselves as a group apart from, and below, the upper uppers, they tend to ally themselves with this group and to minimize the value of family background. Their actual status is evident, however, in their individual relations and in their verbally expressed antagonisms toward the upper uppers on

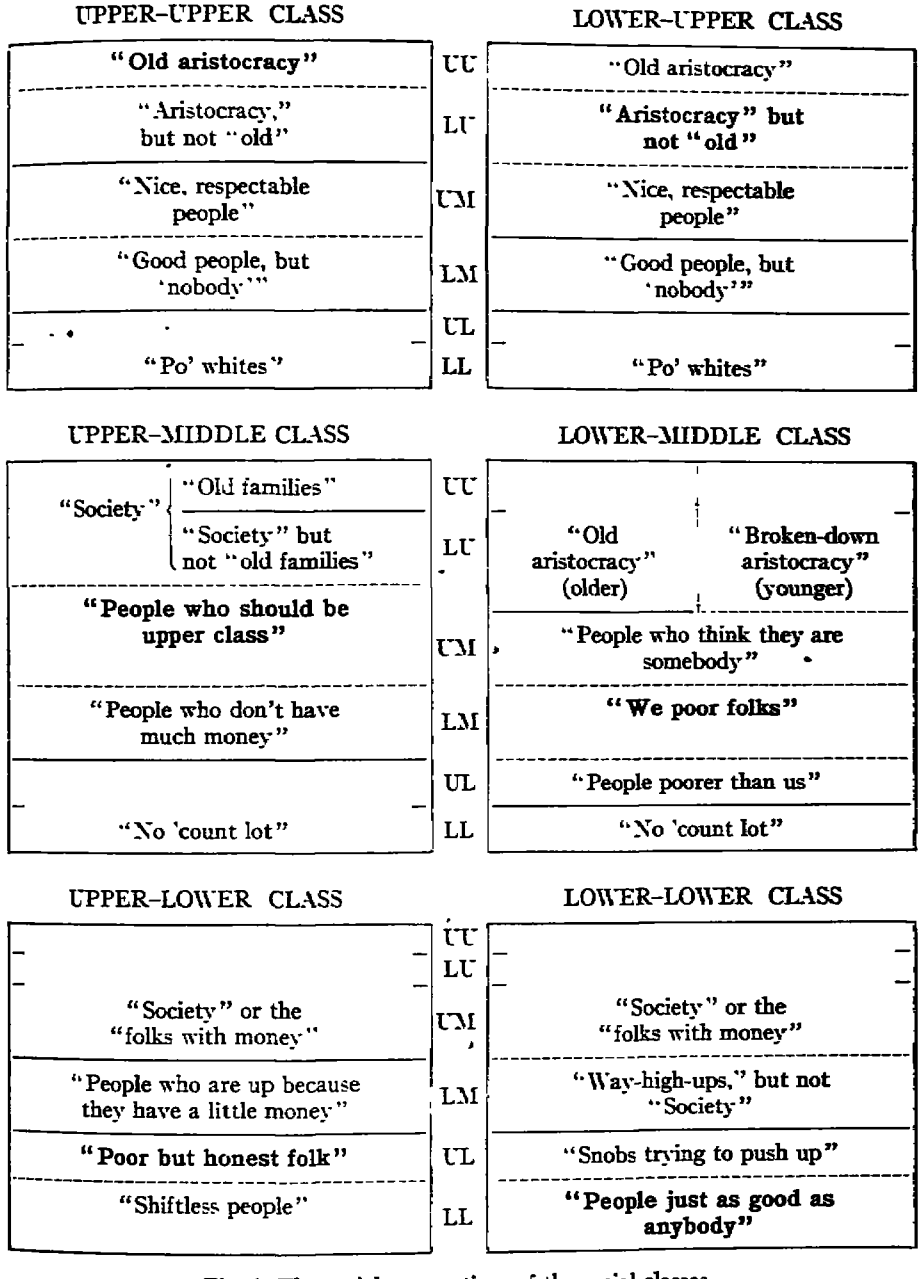


Fig. 1. The social perspectives of the social classes

certain occasions. In several cases, lower uppers resisted subordination by upper-upper individuals through face-to-face criticisms of their ancestry; Thus, Mrs. Bowley, upper upper and proud of her family, was both hurt and indignant at lower-upper Mrs. Duncan's remarks about her ancestry:

I said something to Mrs. Duncan about being related to the Montgomerys. She said; "Well, that is nothing to be proud of. I wouldn't brag about it!" I said I didn't see why not; my father had always taught me to be proud of the Montgomery blood in my veins. Then she said that the first Montgomery was nothing but a gambler, and that that was nothing to be proud of. Well, that isn't true! He wasn't *really* a gambler. . . .

Similarly, the lower uppers' definition of the upper-middle class, as a group, is both vague and reluctant. Directly questioned, they frequently deny that persons stratified as upper middle are really below them on the social scale, or they will attempt an evasion. (Their overt behavior, however, belies their words.) They will say, for instance: "I don't mean that Mrs. Atkins and people like that aren't nice and all that. She is. She is very nice and well-thought-of here. We just don't happen to know her very well, and *she doesn't enjoy the same things we do.*" This hesitancy about actually identifying persons as upper-middle class is probably related to the fact that they, themselves, have rather recently moved out of the upper-middle stratum, and many of them still have kinsmen in this social position. (Equally logical, perhaps, are attempts by some persons to overestimate the social distance between themselves and the class from which they came.)

The lower-middle class, on the other hand, is clearly defined by these ascending uppers. In general, they have the same limited contact with the lower-middle class as the upper uppers have; but they seem less inclined to resent the rise of lower middles into the upper-middle class, or their economic improvement. This is, perhaps, due to the fact that specific limited relations with these persons, and a corresponding behavior pattern, are less well established and less fixed by tradition than in the case of upper-upper relations with the lower middles.

Toward the lower class, as a whole, lower uppers present the same indifference and lack of precise definition that their upper-upper associates display.

The Upper-middle Class. Stratification of the society by persons immediately below the upper class (here designated the "upper-middle class") is frequently associated with an expression of moral attitudes and with definite conceptions of the positive value and important role of wealth. These persons are often unable to reconcile the existing social hierarchy with a hierarchy that "should be." In their thinking, their own class group "should be" the highest group in the society, since it is the wealthiest group and the one whose behavior reflects most precisely the traditional teachings of the Protestant church. In spite of this condemnatory attitude, however, they conceive of the upper class as a group separate from themselves. Its superordination in the existing scheme of things is generally acknowledged, albeit somewhat reluctantly. Occasionally, certain persons whom upper uppers place as lower uppers are not included in this group by the upper-middle class. But the "*old* aristocracy" is quite definitely assigned its place at the top; its ascendancy is resented; and the group is condemned for its "immoral behavior."

Upper-middle class individuals who are attempting to rise in the social scale point out beneath them the "lower middles" as a separate class group and almost invariably attempt to exaggerate their social distance from it. Behavior and attitudes of these mobile middle-class individuals toward the subordinate lower middles are similar to those of the upper class, and their relationships with this group tend to be formal and economic. Stable upper middles, however, know many lower middles and sometimes participate with them informally, especially in the younger age ranges. In general, they attribute this differentia-

tion more to the lower economic position of these people than to other traits. They do not try to maintain great social distance between lower middles and themselves.

Like members of the upper-class groups, upper middles make no distinctions within the lower-class group, although they seem somewhat more aware of the presence of this group at the bottom of the white society. While they do have somewhat more frequent contact with them than uppers, especially in employer-employee relationships, all of the lower class is thought of as "just the working class," the "poorer class."

The Lower-middle Class. "We poor folks" and the "other poor people like us" make up the lower-middle class. But, "it shouldn't be that way," they think. "The people who are up are there mainly because they have money," they insist. Persons in this group have rather strong class feelings. Above them they see the upper middles, people like themselves, but with more money. Above the upper middles, they recognize an "aristocracy." Within this "aristocracy" (upper upper and lower upper together) they distinguish between the older persons who have established their superiority through the possession of great wealth in the past and younger individuals, on the other hand, who are not now wealthy or who never have been. These latter have no claim to the position of "upper class," they say; yet they are there. They are just a "broken-down aristocracy." Lower middles think in terms of "younger" and "older" aristocrats, rather than in terms of an upper-upper and lower-upper class, with all age ranges within each group.

Toward the upper middles they level a frequent taunt, "They think they *are* somebody"; and, as a group, lower middles prefer not to recognize the social distance between themselves and such people. They resent all attempts by this class to express any social distance. In general, too, they seem to resent mobility from the upper-middle class into the upper class more than they do mobility from their own ranks into the upper-middle class.

Here, for the first time, a group subdivides the lower class. There is one group, immediately below them, for whom the lower middles have pity but whom they do not condemn or scorn. These are people "even poorer than us," the upper lowers, who are definitely distinguished from the "po' whites," the "no-count," and the "worthless"—the lower lowers.

The Upper-lower Class. Members of the upper-lower class have a sense of solidarity and speak often of "people like us" as distinct both from the lower-middle class above them and the lower lowers below them. Like the middle classes, they think of social stratification in Old City as an absolute hierarchy of wealth. (They are less accurately informed of the actual economic status of individuals above them, however, than one would infer from their conversation.) Their interpretation of class differences is less often tinged with moral concepts than in the case of the middle class.

At the top of the social world, as they see it, is "Society," composed of nearly all those persons who are upper upper, lower upper, and upper middle. All these people are said to be "wealthy." Their high social position is thus recognized and accepted as a fact. Beneath "Society," the upper-lower class recognizes the members of the lower-middle class, whose assumption of social superiority they resent. They are sure that these people occupy a superordinate position simply because they have more wealth.

Between themselves and the lower-lower class, upper lowers make a very careful distinction in their verbalizations, although in actual overt behavior little social distance is maintained. They visit and borrow, exchange domestic services, and converse on the street and in the

stores, although such relations are not so frequent as with members of their own group. Thus, while they participate as equals with lower lowers in many one-to-one, face-to-face relations, they do not, as a group, wish to be identified with those whom they consider inferior, unkempt, and improvident.

The Lower-lower Class. The lower lowers, like the upper lowers, also see "Society" at the top, a vague category for persons above the lower-middle position. Lower-lower-class women occasionally refer to the "very wealthy ladies" in this group. Sometimes, even a few lower-middle-class individuals are included in "Society"; more often, however, lower-middle-class individuals are recognized as a separate group with "some money, but not Society." The small shopkeepers with whom they trade, some policemen, artisans with whom they have some contact, and other members of the lower-middle class are spoken of as "way high up" but distinct from "Society." Lower lowers resent the position of the upper-lower class, the members of which are thought to be socially ambitious and snobbish. Their attempts at refinement are generally ridiculed. The upper lowers' claim to a higher social position is thought to be unjustified and to be based entirely on their economic superiority, their better jobs, and more adequate housing.

Summary. Members of any one class thus think of themselves as a group and have a certain unity of outlook. This is indicated by their frequent reference to "people like us" and to persons "not our kind." Expressions of this group solidarity are particularly prevalent when individuals are discussing groups immediately above and below them. When expressing resentment at exclusion from the class above and antagonism toward mobility from the class below, social classes betray unconsciously their sense of solidarity and "we-ness." It will be seen subsequently, too, that members of these classes and subclasses have a further unity through a common set of beliefs, a common pattern of overt behavior, and other traits which function as symbols of status.

While members of all class groups recognize classes above and below them, or both, the greater the social distance from the other classes the less clearly are fine distinctions made. Although an individual recognizes most clearly the existence of groups immediately above and below his own, he is usually not aware of the social distance actually maintained between his own and these adjacent groups. Thus, in all cases except that of members of the upper-lower class the individual sees only a minimum of social distance between his class and the adjacent classes. This is illustrated by the dotted lines in Figure 1. Almost all other class divisions, however, are visualized as definite lines of cleavage in the society with a large amount of social distance between them.

In general, too, individuals visualize class groups above them less clearly than those below them; they tend to minimize the social differentiations between themselves and those above. This difference in perspective is partly explained by the fact that class lines in the society are not permanent and rigid and that upward mobility is fairly frequent. It is, further, due to the natural tendency in such a status system to identify with "superiors." In view of this situation it is not surprising that individuals in the two upper strata make the finest gradations in the stratification of the whole society and that class distinctions are made with decreasing precision as social position becomes lower.

Not only does the perspective on social stratification vary for different class levels, but the very bases of class distinction in the society are variously interpreted by the different groups. People tend to agree as to where people are but not upon why they are there.

Upper-class individuals, especially upper uppers. think of class divisions largely in terms of time—one has a particular social position because his family has "always had" that position. Members of the middle class interpret their position in terms of wealth and time and tend to make moral evaluations of what "should be.". Both middle-class groups accept the time element as an important factor in the superordinate position of the "old aristocracy," but for the rest of the society they consider only individual wealth and moral behavior as differentiating factors. Lower-class people, on the other hand, view the whole stratification of the society as a hierarchy of wealth. The lower lowers think that all those above them on the social scale are progressively wealthy and that their own subordination is dependent upon this economic factor alone. While upper lowers have a similar idea of those above them, they frequently add a moral note in explaining the subordinate position of lower lowers.

The identity of a social class does not depend on uniformity in any one or two, or a dozen, specific kinds of behavior but on a complex pattern or network of interrelated characteristics and attitudes. Among the members of any one class, there is no strict uniformity in any specific type of behavior but rather a range and a "modal average." One finds a range in income, occupation, educational level, and types of social participation. The "ideal type" may be defined, however, for any given class—the class configuration—from which any given individual may vary in one or more particulars. Also, two individuals may belong to the same association, fall in the same occupational category, belong to the same church, or have the same ideas about local politics; but identity in any one or two such particulars does not necessarily indicate that both individuals belong to the same social class. Class position is determined rather by the configuration of traits which an individual possesses.

An important aspect of this configuration is "ideology"—the set of concepts and the complex of attitudes toward individuals and institutions which individuals exhibit. The members of any one class or subclass share the same general attitudes and beliefs—that is, the same ideology. The conceptions of class which have been described in this section represent one aspect of the class ideologies.

2.

THE CLASS SYSTEM IN THE UNITED STATES

A. Learning the Class System in Plainville, U. S. A.

By James West

The class system of Plainville might well be called a "superorganization," because it provides for every person living there a master pattern for arranging according to relative rank every other individual, and every family, clique, lodge, club, church, and other organization or association in Plainville society. It provides also a set of patterns for expected behavior according to class, and a way of judging all norms and deviations from these norms in individual behavior.

From James West, *Plainville, U. S. A.* (New York: Columbia University Press, 1945). Copyright 1945 by Columbia University Press. Reprinted by permission of the author and publisher.

Yet many, if not most, Plainvillers completely deny the existence of class in their community. They are aware that class distinctions exist "outside," and speak of city dwellers as divided rather exactly between two unevenly sized categories of "rich" and "poor" (or an "idle class" and a "working class"), or among three classes which they call the "rich," the "middle class," and the "poor." About Plainville and most of Woodland County they often say with some pride, "This is *one* place where ever'body is equal. You don't find no classes here." In equating themselves loosely with members of the greater society, they identify verbally with the "working class," or with "the poorer people in cities," though they contrast unfavorably the lot of city wage-earners, who "work (or slave) for others," with their own "independence" and "freedom," whether as merchants, farm owners, farm tenants, or odd jobbers. Further, their respect for "property" is so intense that they in general disapprove heatedly of unions, strikes, collective bargaining, or any other devices by which city workers organize or act to further their own interests against those of ownership or invested wealth.

According to their individual rank people tend to recognize the local class system for what it is, or are at least more able or willing to verbalize regarding it: "higher ups" speak more clearly and frankly about the system than do their inferiors. Politicians, mortgage entrepreneurs, traders, professional men, and socially ambitious people seem to understand the system better than many other people do, because they have had to study it and use it, in manipulating people to their own advantage. The strongest preventives toward full recognition of class as it exists and operates here are these: (1) the deeply rooted American moral attitude that class distinctions are wrong; (2) a traditional conviction that rigid class distinctions occur only in cities (or in the South, where Negroes constitute an "inferior" class); and (3) the local etiquette governing interclass relations—no one must be reminded overtly of his "inferiority" ("Everybody here is treated equal").

"People know their place" well enough, however, and in actual daily life few errors are committed against the rules under which people meet, work, transact business, talk sociably, and maintain before inferiors the fiction of living in a classless society.

Upper-class methods of teaching children how to treat inferiors are observable daily by people who have access to the homes in which upper-class children are reared. These methods are about as uniform and inexorable in their application as they would be if all upper-class people freely and openly subscribed to a "class theory" regarding social organization of their community. Discriminations against inferior people are usually inculcated in terms of family names, or at most, the phrase "people like that," a phrase which can be used either pejoratively or approvingly. The child is told, "*You* don't want to play with Johnny *Jones! He* (his family, people like *that*) don't know how to *act* (talk, play, play right, play nice, play *your* kind of games). . . . Why don't you walk home from school with the *Smith* children? You'd like to be *seen* with people like that. . . . The *Joneses* keep hounds . . . are dirty . . . have bedbugs . . . won't work . . . live back in the timber . . . have nothing (the appeal is only rarely to relative wealth or property) . . . don't go to church . . . are rough . . . are not *our* kind. People would *laugh* if they saw you at the JONESES. . . . The Smiths are nice (or 'nice average') people like us . . . they *live* right and know how to *treat* people right." It doesn't take much talk of this kind to teach Junior and his sister who the Smiths and Joneses are, but they hear enough to drive the lesson firmly home

against the contradictory axiom that "ever'body here is equal." At the same time they are "cautioned" repeatedly never to "show" the Jones children that they "feel any difference," and never to "tell away from home anything they hear at home that might hurt anybody's feelings." A lady mentioned her chagrin when a neighbor woman once "bawled her out in town" for saying that the latter's family "had bugs." The informant said, "I just told (my little boy) that so he wouldn't want to play there, but he went and told it. I fixed (punished) him, and he never told anything like that again."

It is harder for a field worker to observe how lower-class children learn their share of the same lesson, though they learn it equally well. Certainly all lower-class parents teach their children as a fundamental dictum regarding their status, "You're just as good as anybody." When their children complain, however, of rebuffs or neglect from other children this dictum is apt to be softened into an appeal to them through self-pride to "*act* like you're just as good as anybody." Or they may hear the following, "I wouldn't want to go where I wasn't wanted." Real or fancied slights suffered by these children are often explained away by compensatory statements of contempt toward the families of the offenders. "They're *selfish* people . . . cold people. They don't have no manners (don't know how to treat people). . . . They're stuck up, uppity, persnickity. . . . They think they're *good* (above, rich). . . . They're too 'nice' for us. . . . They're Sunday school folks so of course they think they're above. . . . They're church hypocrites." By comments related to prestige points valid only among the lower element, the pride of children is often reinforced toward the parental way of life. "*You* know how to shoot (hunt, fish, trap, swim) better than *any* Smith boy. . . . You could outfight any Smith your size." It is through such "timber" traits and the common "outlaw traits" of all boys that the Smith and Jones boys often become and remain "good friends" in a male life carried on mainly outdoors. It begins in boyhood play and continues in the line-fence neighboring, loafing-group intimacy and trading and "political" maneuverings in which all men move freely about the community. The social integration of the community rests on the easy intimacy of men. The community *is* a community because men can associate freely beyond the walls of their homes.

B. The Family in the Class System

By W. Lloyd Warner and Paul S. Lunt

In every society certain subunities tend to be established and maintained over time as characteristic structures, distinguishable by the arrangement of their members with relation to each other and to members of the larger community. Structures of the same type will differ from society to society, and a given type may sometimes be lacking altogether. The several kinds of structures in a particular society differ more from each other than do structures of the same type in different societies. The immediate family in modern America, for example, resembles more closely the immediate family in many African tribes than it does, let us say, the contemporary American economic or political organiza-

From W. L. Warner and P. S. Lunt, *The Social Life of a Modern Community* (New Haven: Yale University Press, 1941). Reprinted by permission of the authors and the publisher.

tions. The similarity in kind of structures in different societies facilitates scientific comparison, while the differences in kind of the several institutions in one society facilitate the analysis of human behavior in complex modern communities like Yankee City. Among the various subgroupings of individuals in the larger community, the family, the association, the clique, the political organization or government, the church (as a social structure), economic institutions (e.g., the company, the factory, and the store, or in a primitive group the horde or hunting band), castes and classes, and age or sex groupings have been differentiated. These several structures, according to the theoretical orientation with which we began the study and prosecuted it during its later stages, were conceived as constituting the social organization of the Yankee City community.

The maintenance of a family's social position in any hierarchal society through an extended period of time is, in large part, dependent upon the vertically coordinate social positions of the marrying pair. If the society is organized on the principle of caste, the males and females of two uniting families must be members of the same caste; they express by the marriage their social equivalence and help maintain the continuing location of their families' place. All the values and sanctions of a caste help to enforce such equivalent marriages.

In a class system, however, there is an ambivalent situation, for only part of the values and sanctions of class act in this way. A positive sanction is placed on bettering oneself, making a "fine marriage," and a negative sanction on the opposite of "lowering oneself" or "marrying beneath oneself." Those opposing tendencies are normally resolved in a class system in such a way that these people maintain an approximation of their premarital positions by and after marriage. Nevertheless, despite the pressure to marry at one's own level, a

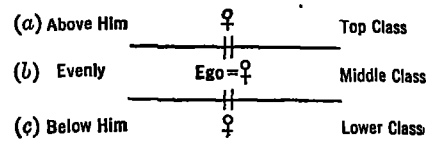


Chart 1

certain number of people marry above and below their own social position. Such behavior is a part of the general situation in a class society, the reason being that there are relatively few methods available for imposing either physical or social segregation which might prevent upward or downward marriages.

The Yankee City class which has the best chance to express its social distance is the upper. This class has more mechanisms to express social distance, and often it can and does translate social distance into geographical and spatial distance. The private school, large grounds, nurses for children, large houses, and infrequent use of public conveyances all geographically express and help maintain distance between the members of this group and those who might want to become socially nearer to them.

The problem of marriage in a class system, when social position is to be maintained, is one in which there must be an equivalence of place not only for the marrying pair of one generation but for the many generations which succeed each other. In class, unlike caste, there are three possibilities of marriage instead of the one in caste. As Chart 1 demonstrates, a person may marry above, below, or evenly. Thus the maintenance of a given position is much more difficult since the generations of marrying pairs must maintain repeating cycles of equal marriages. The maintenance of the same position by the members of several generations of one line of descent (a patronymic group in Yankee City) through the use of the marriage mechanism is illustrated in Chart 2. It translates the descending generations which begin above ego and continue on

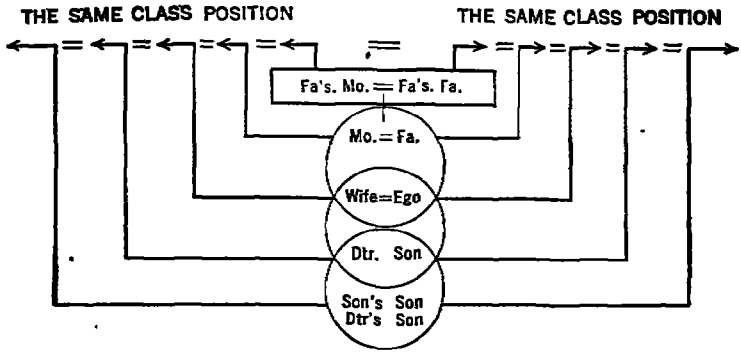


Chart 2. Marriage, family descent, and the maintenance of class position.

through his own generation into those which succeed him by a line which extends laterally and is composed of arrows and signs of equality to show that the same position is maintained not only by descent but also by marriage.

C. The Social Role of the Teacher

By W. Lloyd Warner, Robert J. Havighurst, and Martin B. Loeb

On the immense stage of the North American continent boys and girls are born, grow up, and play their parts as adults. Helping them to learn their parts in the drama of life are the teachers, who themselves have a special role to play.

Teachers represent middle-class attitudes and enforce middle-class values and manners. In playing this role, teachers do two things. They train or seek to train children in middle-class manners and skills. And they select those children from the middle and lower classes who appear to be the best candidates for promotion in the social hierarchy.

Two groups of children escape this influence in part. Children of upper-class parents often do not go to the public schools or drop out after a few years of public-school attendance. These children attend private schools or have private tutors. The tutors and teachers in private schools are also usually middle-class people, but their role is not the same as that of the public-school teachers. They are restricted to teaching certain skills which have upper-class value. They are not expected to teach manners and social attitudes. Many children of lower-class parents also escape the influence of teachers, through being recalcitrant in school and through dropping out of school just as early as possible. But the teachers play their special role in the lives of the vast majority of American children, including all middle-class children and a great many lower-class children.

To play the teacher's role successfully and with a feeling of personal satisfaction requires a certain kind of personality. We have seen some of the characteristics of this personality. Many, probably most, teachers are using their profession to "get ahead in the world." They have either been born into the middle class or they have worked up into this class. Middle-class standards of refinement and ambition mean a great deal to them.

From W. L. Warner and others. *Who Shall Be Educated? The Challenge of Unequal Opportunity* (New York: Harper & Brothers, 1944). Reprinted by permission of the authors and the publisher.

They take these things seriously. They inevitably, and for the most part unconsciously, judge their pupils by these standards.

The teaching group perpetuates itself. Teachers are chosen, or choose their profession, largely through a kind of informal apprenticeship. Young people do well in school, they like their teachers, and they are liked by their teachers and encouraged to go into the profession. In turn, when they become teachers, they choose others like themselves to follow in their footsteps.

There are other possible social roles for a teacher, and we find a minority of teachers adopting them. There is the role of social reformer, played by a few teachers, usually men. This is a middle-class role, but it involves the teacher in conflicts with various middle-class interests in the community and sometimes ends in open hostility on the part of the school board and many parents toward the teacher. But if he is tactful and can stand the strain of the conflict, the teacher may succeed in playing this role, especially if he is a high school teacher. Some teachers who play this role get opportunities to go into college teaching, where they are much more free to follow their particular variation of middle-class behavior.

The teachers in a large city school system have still another variation of the basic middle-class role. Where they are protected by tenure legislation, they have freedom to become active workers for certain underprivileged groups. They often join the teachers' union and work politically with groups which draw largely from the upper-lower level. This might lead teachers to abandon a middle-class role and to throw in their lot with a "class-conscious" lower class, bringing them in direct conflict with middle-class groups. But it has not happened. The American Federation of Teachers has been conservative of middle-class values, and teachers with thoroughgoing middle-class attitudes feel at home in the union.

It is difficult to conceive the teachers' social role in America as being anything but an expression of middle-class values. Unless there is a social revolution which upsets the middle class, teachers will continue to act as exemplars for this social class. But the middle-class viewpoint will change a great deal during the social change of the next few decades. The naive ideal of unlimited material progress for the society and unending social climbing for all its members who are industrious and ambitious is bound to give way to a more realistic view of society and of human nature, combined with greater faith in spiritual as opposed to material values. The role of the teacher as the exemplar for this philosophy will become more subtle and more creative.

3.

THE AMERICAN CLASS STRUCTURE: A Psychological Analysis

By Richard Centers

Method and Results

In the summer of 1945, a public attitude survey was conducted which attempted to combine the approaches of Kornhauser[1] and Cantril[2] by studying both attitudes with respect to various major economic and social issues and to class identification. Interviewers questioned a representative cross section of the adult white male population (1,100 persons), with respect to their subjective class identification, their opinions on major social, economic, and political issues, their adherence to certain traditional attitudes and beliefs typically regarded as parts of the American ideology, and various background factors such as occupation, religious affiliation, nationality, etc.[3] A battery of six questions designed to test conservative-radical orientations was included in the interview. These were as follows (numbers refer to the position of the items in the interview schedule):

1. Do you agree or disagree that America is truly a land of opportunity and that people get pretty much what's coming to them in this country?
4. Would you agree that everybody would be happier, more secure, and more prosperous if the working people were given more power and influence in government, or would you say we would all be better off if the working people had no more power than they have now?
5. As you know, during this war, many private businesses and industries have been taken over by the government. Do you think wages and salaries would be fairer, jobs more steady, and that we would have fewer people out of work if the government took over and ran our mines, factories, and industries in the future, or do you think things would be better under private ownership?
6. Which one of these statements do you most agree with?
 (1) The most important job for the government is to make it certain that there are good opportunities for each person to get ahead on his own.
 (2) The most important job for the government is to guarantee every person a decent and steady job and standard of living.
7. In strikes and disputes between working people and employers do you usually side with the workers or with the employers?

14*a*. Do you think working people are usually fairly and squarely treated by their employers, or that employers sometimes take advantage of them?

These questions had all been pretested for comprehensibility by the writer. Their validity and the internal consis-

Adapted by the author from material more fully reported in *The Psychology of Social Classes* (to be published by Princeton University Press).

[1] A. W. Kornhauser, "Analysis of 'class' structure in contemporary American society—psychological bases of class divisions" in *Industrial Conflict: A Psychological Interpretation*, edited by G. W. Hartmann and T. Newcomb (New York: Cordon Co., 1939).

[2] H. Cantril, "Identification with social and economic class," *J. Abnorm. & Soc. Psychol.*, 1943, XXXVIII, 74–80.

[3] The survey was carried out through the facilities of the Office of Public Opinion Research of the Department of Psychology at Princeton University, of which Dr. Hadley Cantril is Director. The office at that time (July 1945) had its own staff of trained and experienced interviewers in the field.

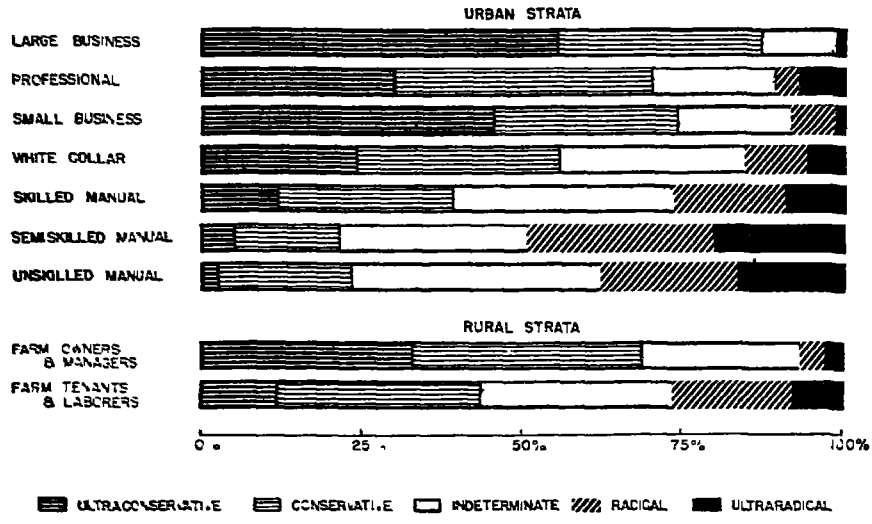


FIG. 1. Attitude differences of occupational strata, conservatism-radicalism

tency of the battery have been discussed fully elsewhere.[4]

In describing the results of this test, individuals are assigned to one or another of five different categories, viz.: Ultraconservative, Conservative, Indeterminate, Radical and Ultraradical, in accordance with the consistency with which their answers to the six questions adhered to either extreme of conservatism-radicalism.

In such terms our results show a fairly even division of the male population of America in attitude. Fifty percent are either conservative or ultraconservative. The other 50 percent are nonconservative (i.e., indeterminate, radical, or ultraradical). The differences in attitude of several occupational strata, however, are our main interest here. These are shown in Figure 1.[5] *An examination of these differences can leave little doubt that peoples' politico-economic orientations are closely associated with their statuses and roles in the economic order.* Persons who stand at the top and dominate that order are clearly its stanchest defenders. *Less than 2 percent of large business owners and managers are either radical or ultraradical.* Adherence to the status quo decreases in frequency consistently as one examines lower and lower status levels of the occupational hierarchy. *The laboring groups are conspicuously nonconservative, and they are the most radical of all the groups in the whole array.*

Conservatism is not entirely absent among them, to be sure, but the contrasts between these groups and the business-owning and managing and professional strata are striking. More of the laboring strata than others, again, show such marked inconsistency of allegiance or opposition to the existing order that they can only be classified as "indeterminates," in terms of our scale. It is impossible to describe them as clearly radical, yet impossible to categorize them as conservative either. It is much as if they wavered, torn between conflicting desires, unable to reach a decision. (In times of political or economic conflict

[4] R. Centers

[5] Those interested in the exact figures and the statistical significance of differences should refer to the original source, R. Centers, *op. cit.*

the persuasion of these "marginal" cases might well decide the issue. Twenty-seven percent of the total cross section are of this character.)

Striking contrasts between occupational strata not only exist with respect to the conservatism-radicalism scale as a whole, but also for individual items of the battery. Some of these are illustrated in Figure 2. The differences between the top and bottom occupational strata scarcely require comment. The opposed points of view are nowhere better exemplified than with respect to question 6, which required the respondent to choose between two opposed philosophies of government—an individualistic one and a collectivistic one. *This is the central issue of all today's politico-economic strife.* It is in terms of it that the largest contrasts in attitudes of occupational strata are found.

There is little need to dwell upon these findings. They are clear and unambiguous evidence that persons occupying different positions with respect to the economy of production and exchange tend to have the differing orientations presumed by an interest-group theory of class.

But are people of these strata that differ so much also class conscious and in a way that conforms with their politico-economic orientations? This is one of the crucial questions that the class theorist must answer.

The previous attempts to assess the status of class consciousness have been uniformly unsatisfactory, in the sense that they tended to find no differences in class identification that agreed with the sort of differences described above. The most obvious defect has been that those studying identification seem to have assumed that class-conscious persons of the manual labor strata *should* differentiate themselves from the business and professional groups by use of the term *lower class* to describe their group. Lower class, however, is not a flattering term. The writer has rarely heard any-

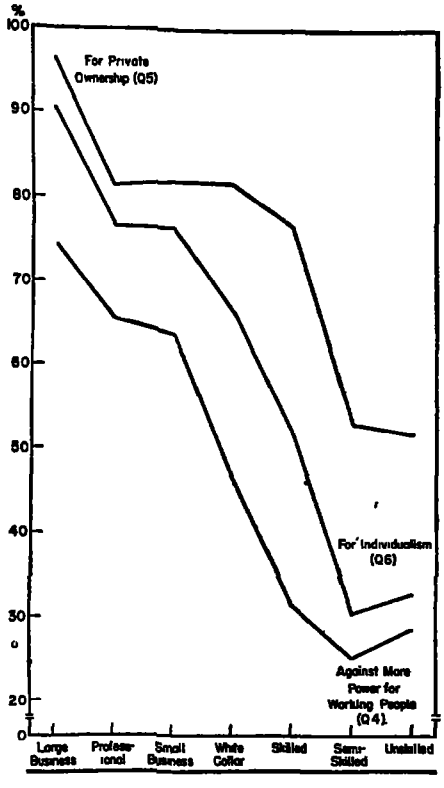


FIG. 2. Attitude differences of urban occupational strata.

one use it to designate his class. He has, however, often heard the term *working class* used.

The people we interviewed were asked: "If you were asked to use one of these four names for your social class, which would you say you belonged in: the middle class, lower class, working class, or upper class?" The results for the national cross section are shown in Table 1.

TABLE 1

PERCENTAGES OF THE POPULATION AFFILIATING WITH EACH SOCIAL CLASS

Upper class	3
Middle class	43
Working class	51
Lower class	1
Don't know	1
Don't believe in classes	1

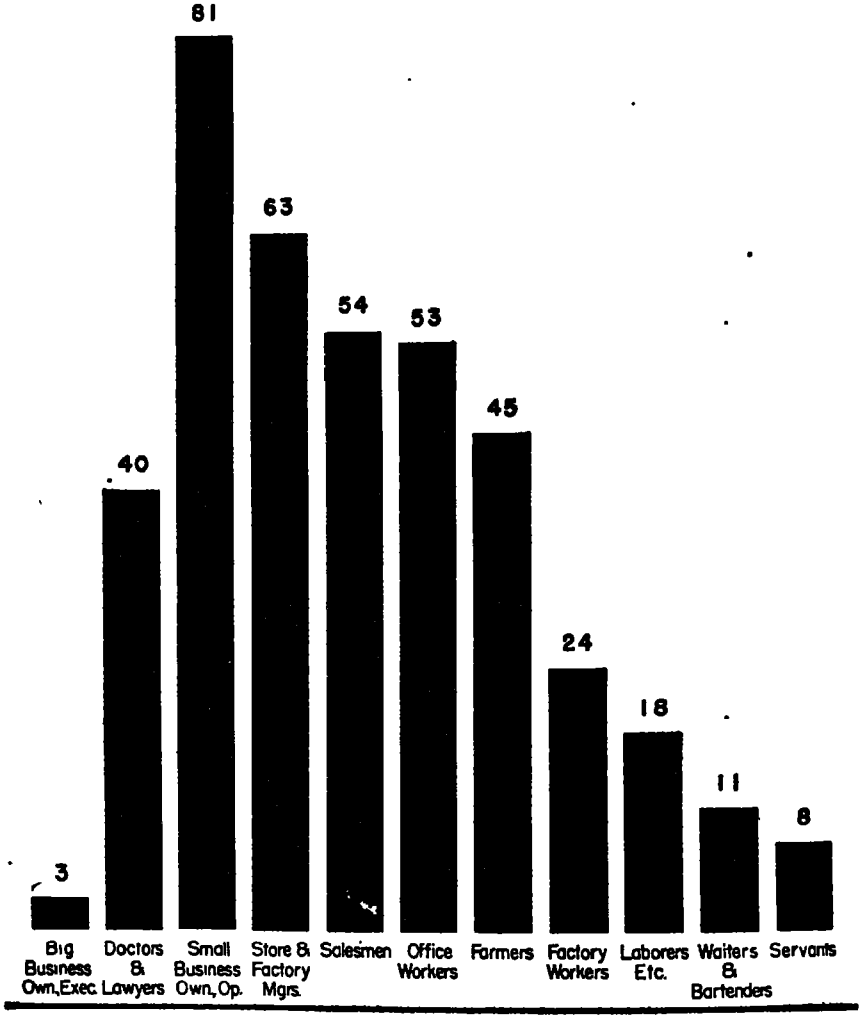


FIG. 3. Occupational composition of the middle class according to middle-class specifications of the occupational membership. Numbers at the top of each bar represent the percent of people in the middle class who include the given occupational group in the middle class.

These figures make it obvious that Americans in heavy majority do not belong to one big middle class as formerly believed. *A majority are now found to affiliate themselves with the working class.* This is not at all surprising, since the majority of our male breadwinners *are* workingmen. Such a class term more or less accurately characterizes their social role. We have more than such easy generalizations as this to testify to the social meaning of classes, however. We asked our respondents to define them. If they are more than just names they should demarcate definite sectors or groups of the population in terms of some objective criterion such as occupation, standard of living, function or role in the economic order, education or the like. It is in terms of such criteria that the meaning of classes to the population may be learned.

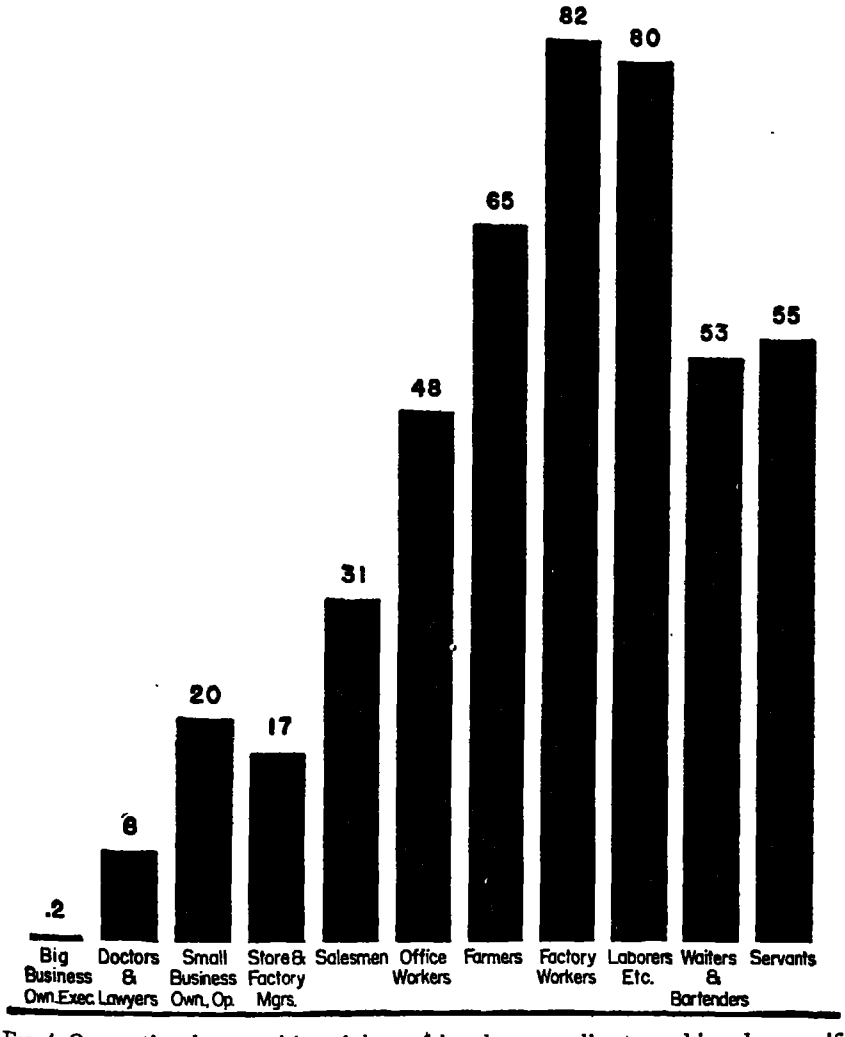


FIG. 4. Occupational composition of the working class according to working-class specifications of the occupational membership. Numbers at the top of each bar represent the percent of people in the working class who include the given occupational group in the working class.

In order to discover the social definitions of the several classes, the members of each class were asked which of the several occupational groups listed below belonged to their classes.

Big business owners and executives
Small business owners and operators
Factory workers
Office workers
Doctors and lawyers
Servants
Farmers
Laborers, such as miners, truck drivers and shopworkers
Store and factory managers
Waiters and bartenders
Salesmen

Individuals, of course, each named several occupational groups they conceived to belong to their classes, and

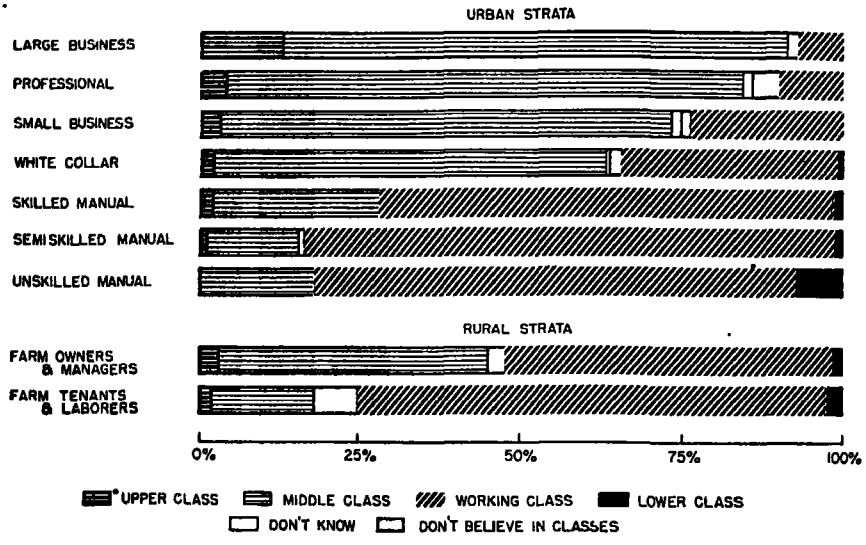


FIG. 5. Class identifications of occupational strata.

their individual definitions of membership vary somewhat. By pooling the individual definitions of persons in a given class, however, we obtain a composite definition that tells us *who belongs to that class*, and hence, *what sort of people an individual is identifying himself with*, when he identifies himself with a given class. The definitions of the two major social classes are given in Figures 3 and 4.[5] These indicate the distinctive patterns of occupational membership characteristic of each group. Despite a considerable confusion and blurring of class lines, the patterns of membership are unmistakably different. It is clear that the middle class is a business, professional, and white-collar group, equally clear that the working class is a manual one. The blurring merely suggests that though occupation serves well as a criterion of class distinction, it may not be the only one in actual use.

It was suspected that several other criteria might be important, and to gain some knowledge of their relative significance we asked each person: "In deciding whether a person belongs to your class or not, which of these other things do you think is most important to know: Who his family is; how much money he has; what sort of education he has; or how he believes and feels about certain things?"

The results are summarized in Table 2. *Nearly half the people of our cross section said, "how he believes and feels about*

TABLE 2

CRITERIA FOR OWN CLASS MEMBERSHIP OTHER THAN OCCUPATION

Percent saying:[a]	
Beliefs and attitudes	47.4
Education	29.4
Family	20.1
Money	17.1
Other answers	5.6
Don't know	9.1

[a] Percentages add to more than 100 percent. People often gave more than one answer.

[5] Because such small numbers of the 1,100 people we interviewed identified themselves with the upper and lower classes, the numbers defining these classes are very small for each of them, and lacking statistical adequacy, these definitions are omitted here. Interested readers are advised to see the larger report, R. Centers, *op. cit.*

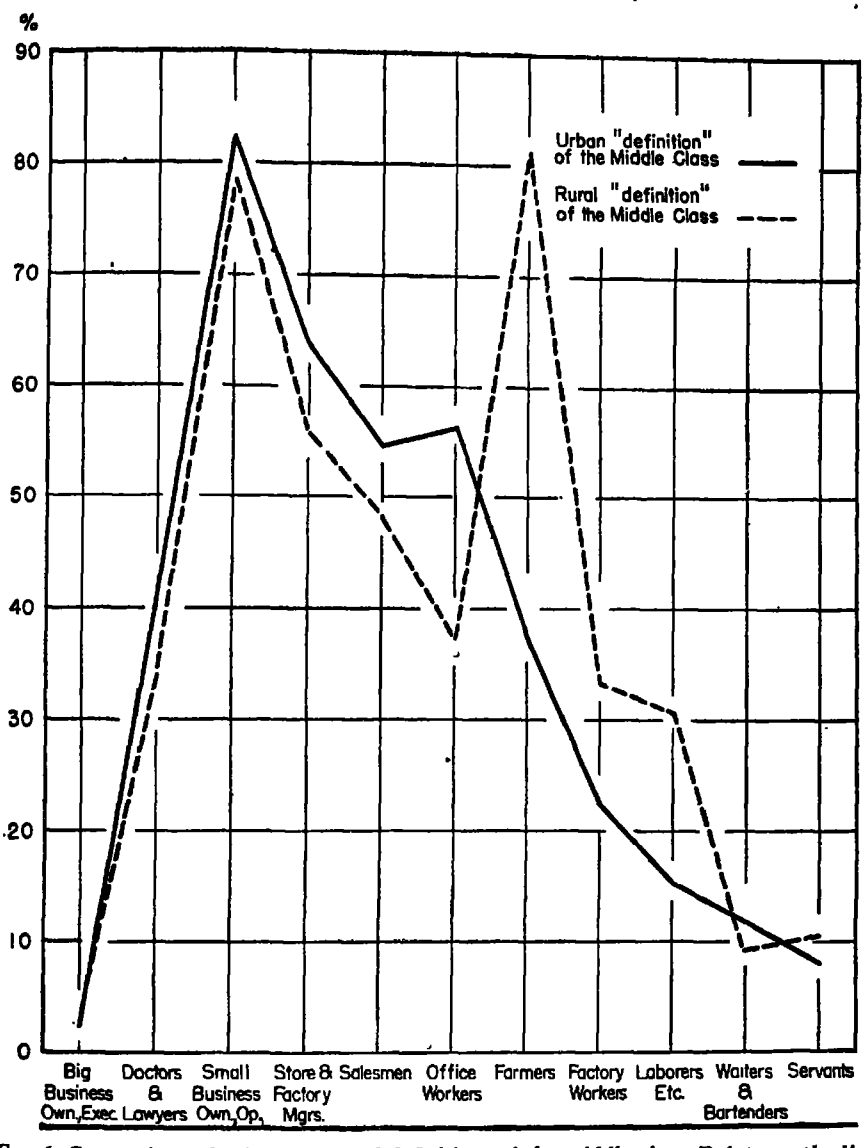


FIG. 6. Comparison of urban and rural definitions of the middle class. Points on the lines above each occupational category indicate the percentage of persons who say members of that occupational category are members of the middle class.

certain things." The implications of this for an interest-group theory are so plain as to make much additional comment superfluous. Common attitudes and beliefs are distinctive characteristics of social classes.

Let us turn now to another important question. How do people of different occupational strata differ in their class affiliations, and are such differences of affiliation in a direction to be expected on the basis of the interest-group concept? The answers to such questions can be gained from an examination of Figure 5.

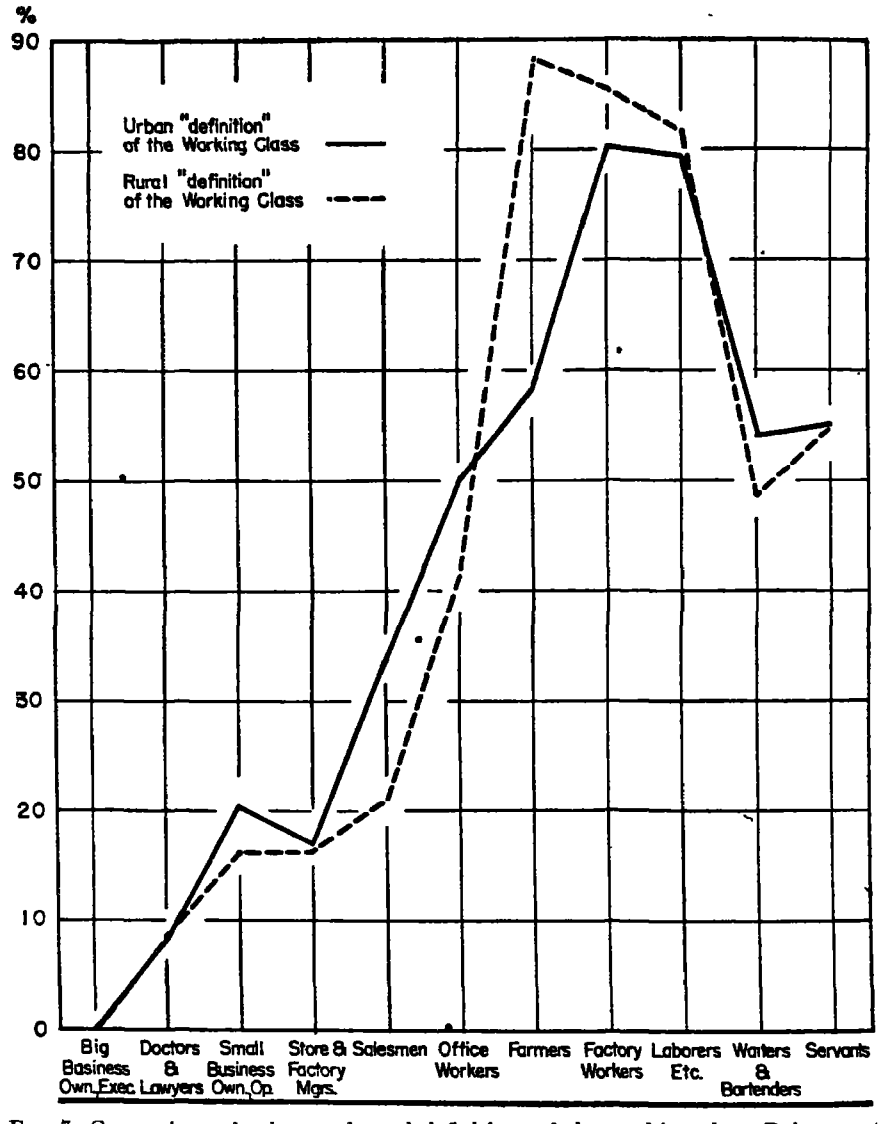


FIG. 7. Comparison of urban and rural definitions of the working class. Points on the lines above each occupational category indicate the percentage of persons who say members of that occupational category are members of the working class.

The differences are in the expected direction. Just as occupational groups were found to differ before in conservatism-radicalism, so now they differ with respect to class allegiances also. The business-owning and managing groups and professional and white-collar people are all predominantly middle class. Considered all together about three quarters of them say they belong to this group. The manual-labor strata are, in contrast, predominantly working class in subjective class membership. Seventy-nine percent of all such persons profess such

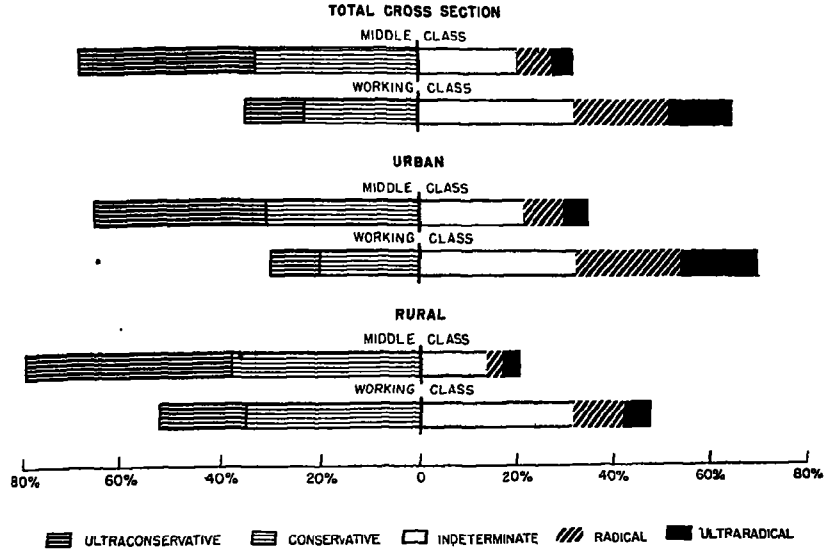


FIG 8. Class differences in conservatism-radicalism.

an identification. The differences for the two rural strata are less striking (as were also their attitude differences), but they too display a cleavage of loyalties in the direction to be expected from their differing socio-economic statuses and roles.

The differences between upper- and lower-farm strata are less sharp, probably because of several related factors. Space limitations forbid detailed discussion here, but such circumstances as their both being tool users and productive workers might be expected to minimize consciousness of differences in class, as well as might the fact that much less differentiation of wealth and power exists among them. However this may be, it is significant to note that *their conceptions of the classes with which they identify themselves are strikingly like the conceptions that urban people have of these classes.* In Figure 6, persons of the middle class whose residences (and occupations) differ are seen to define the middle class in quite similar ways except for the frequency of inclusion of farmers in that class. Figure 7 shows the two definitions of the urban and rural sections of the working class. Again the similarities are evident.

Thus far the data cited certainly support an interest-group concept of class structure, but the comparisons have been primarily of an indirect sort. Occupational strata have been seen to manifest the same trends of behavior with respect to both politico-economic orientation and class identification, but we need a more direct comparison of these dual aspects of class feeling. Let us contrast the politico-economic orientations of our two major social classes themselves. Figure 8 affords this contrast. The attitudes certainly differ in a substantial way. *The middle class is by far the more conservative group, while the working class is beyond question the more radical.* This is true not only for the classes as wholes, but also true for the urban and rural portions of the two classes considered separately.

Numerous other comparisons can be made which show the consistency with which class identification and conservatism-radicalism vary together. But only

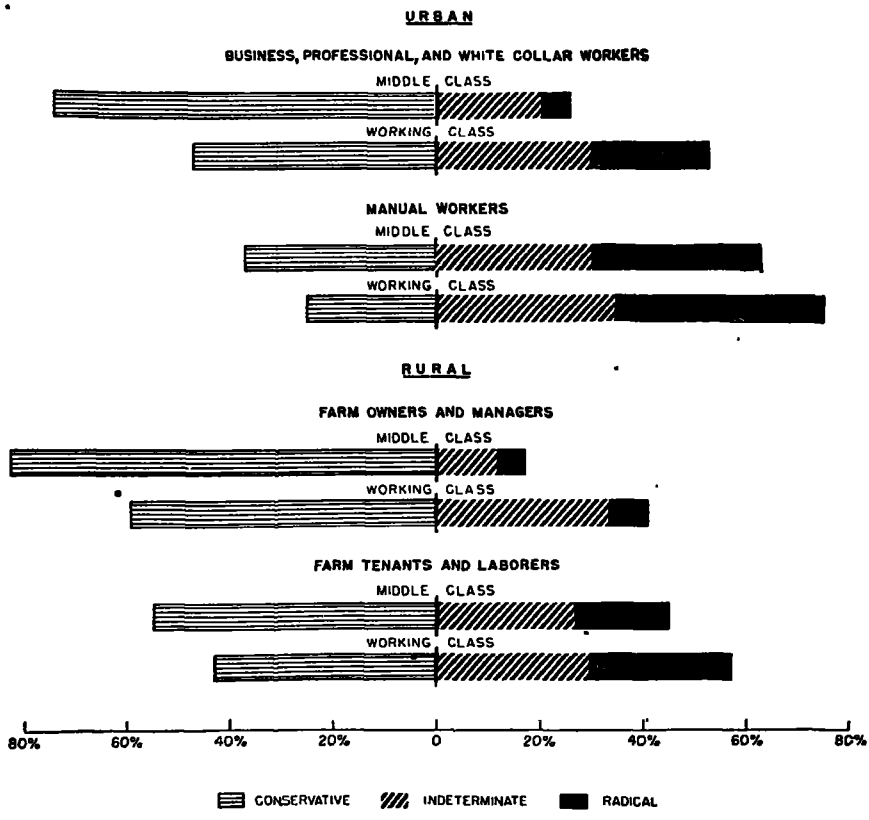


FIG. 9. Stratum and class differences in conservatism-radicalism.

one more, which will serve to bring out several important points, will be given here. In Figure 9 the attitudes of persons of similar occupational strata, but of different class affiliation, are shown contrasted. It can be seen at once that if people of a given occupational stratum differ in class membership they tend to differ also in attitude. Those identifying with the middle class are more often conservative than those who identify themselves with the working class. The latter tend to be more often radical. *If people's class identifications are the same, their attitudes tend to be similar even though their objective occupational positions are different.*

It is obvious also that the person's occupational stratum is an even better index to his attitude than is subjective class affiliation. Further, where objective position and subjective identification "coincide"—as we might express it where manual workers are identified with the working class and where business, professional, and white-collar workers are identified with the middle class—the attitude differences are greater than ever, greater, that is, than they would be if either class identification or occupational stratum were considered alone. *Both objective and subjective factors work in the same direction; two indices to conservatism-radicalism are better than one.* If we know a person's occupation we can predict something about his attitude from that knowledge alone, and if we know only his class identification we can also predict something about attitude; but if both occupation and class identi-

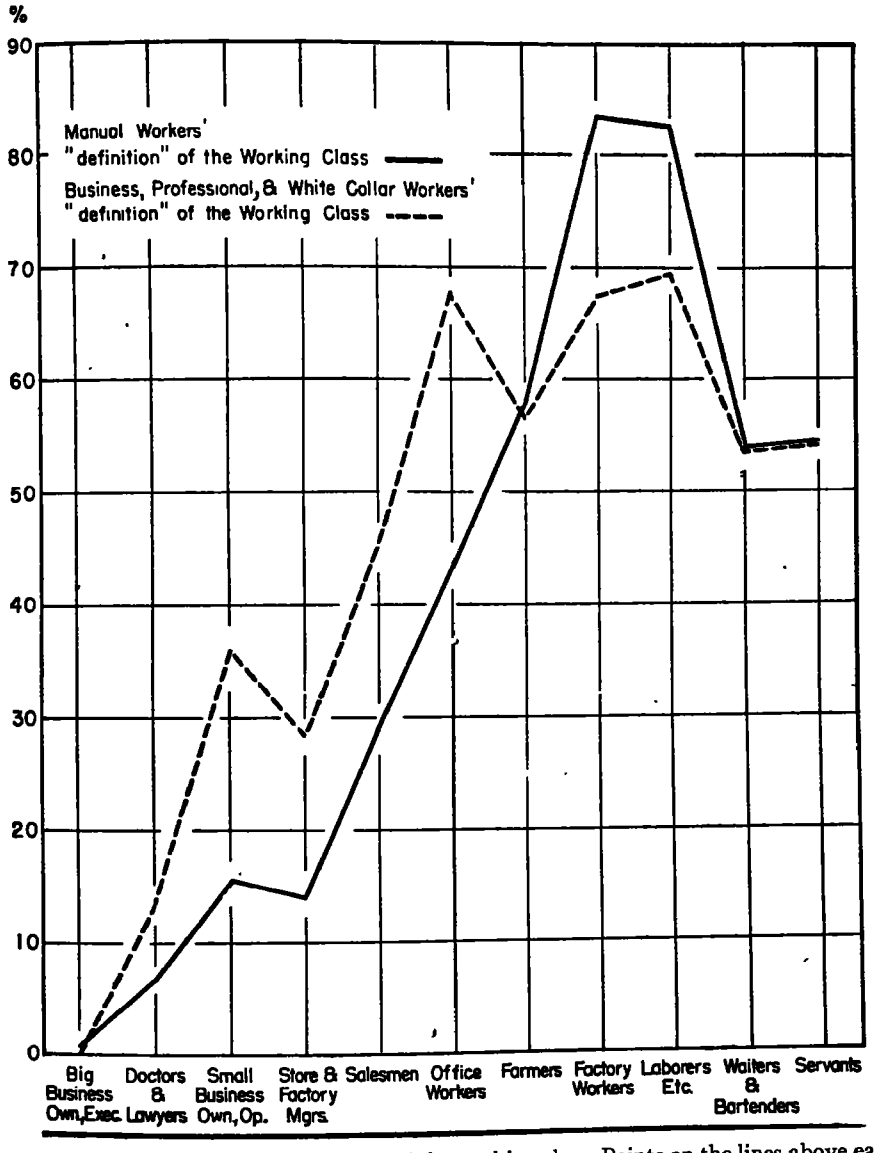
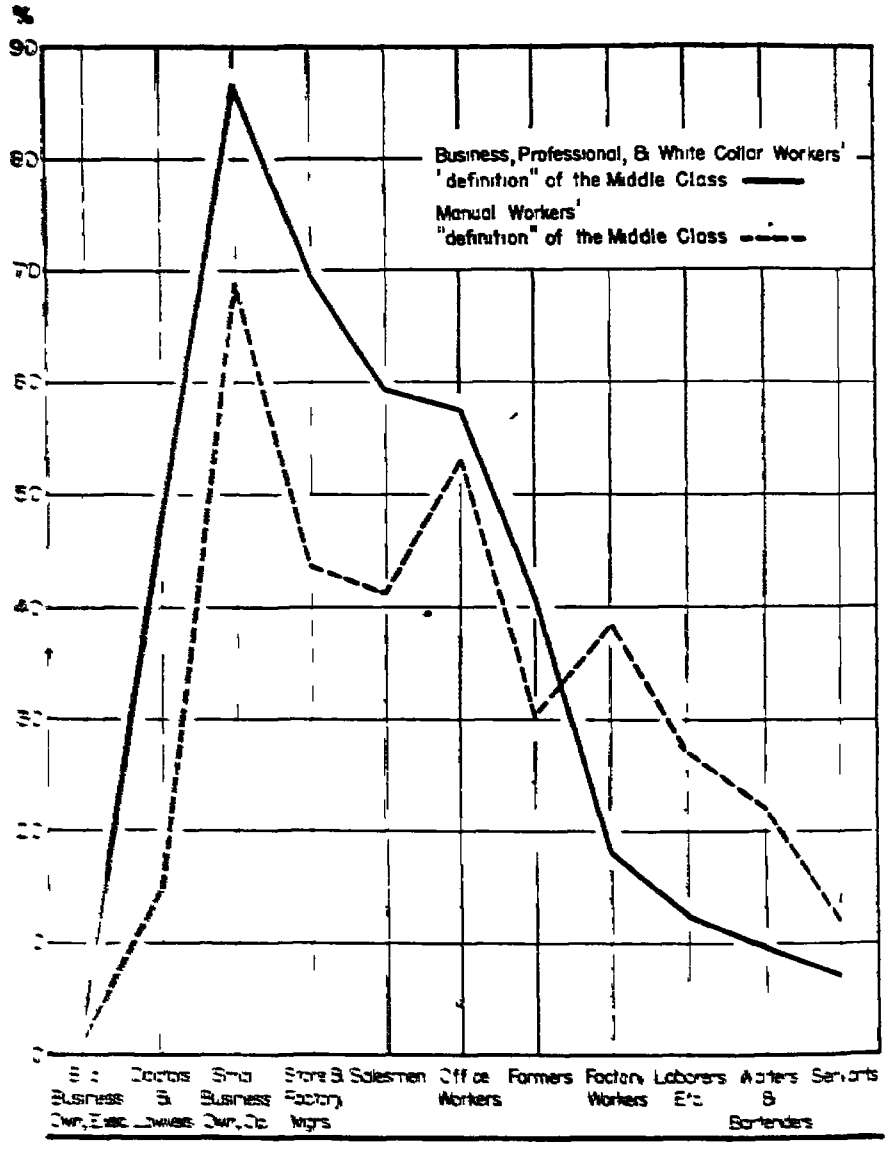


FIG. 10. Comparison of two definitions of the working class. Points on the lines above each occupational category indicate the percentage of persons who say members of that occupational category are members of the working class.

fication are known, our prediction of his attitude can be even more definite.

It should not, of course, be assumed that class identification is, by such a comparison, implied to be a cause of attitude differences over and above *all* socio-economic factors. It may well be but further data (which cannot be included here) indicate that other socio economic factors such as standard o living and dominance-subordination i productive and exchange activities "sum



[illegible] of the middle class. Per[illegible] of persons who [illegible] the middle class.

[illegible] with occupational [illegible] in the manual stratum may be somewha[illegible] better off than most manual w[illegible] a[illegible] far as income or authority [illegible] concerned. Such factors are [illegible] b[illegible] associated with identificati[illegible]

"higher" class. Also, those (in Fig. 9) of the business, professional, and white-collar stratum who are found identified with the working class may be so identified for a variety of reasons, two of which are known to be comparative poverty and subordinate, i.e., employee, status.

The contrasting of separate portions of classes, as in Figure 9, can also serve to answer still another very important question. How can we know that people of the business, professional, and white-collar stratum who say they are members of the working class are really identifying themselves with a predominantly manual group? *If they are doing this, then they should define the working class in essentially the same way as it is defined by the manual workers of that class.* As can be seen in Figure 10, this is approximately what they do. Their definition is biased in the direction of including members of their own strata in the working class more frequently than manual workers do, but they are, nevertheless, *despite their own higher status*, identifying themselves with a preponderantly manual group. A similar comparison can be made for different sectors of the middle class. In Figure 11 it is to be seen that persons of different occupational strata but of like class affiliation tend to define their class in essentially similar occupational terms. Manual workers who affiliate with the middle class are identifying themselves with primarily nonmanual occupational strata.

Social classes differ with respect to many other psychological characteristics in addition to those mentioned above. Some outstanding differences are those that relate to such matters as satisfaction and discontent with the various circumstances of life and work. Others concern their desires and motives. Extended consideration of these cannot, however, be encompassed here.

Summary

Several findings of a recent study concerned with the nature of social classes have been reviewed in the foregoing discussion, with particular emphasis being placed upon the significance of these in relation to an economic interest group theory of class structure. The politico-economic orientations of occupational strata as well as the class identifications of these strata were described. The American class structure as people in America themselves define it was discussed, and the definitions of the two major social classes of the system were depicted. A series of tests of the interest group concept of social classes was briefly reviewed. In each case clear and substantial support for the theory was found.

On the basis of the evidence reported, social classes may be tentatively described as psycho-social groupings of the population of persons whose socio-economic positions are objectively similar, in the main, and whose politico-economic interests tend to coincide. Similarities of socio-economic position of only one kind, namely occupation, were described above because of limitations of space. Other factors, such as standard of living and dominance-subordination in the productive and exchange relations, are also known to be important determinants of class consciousness. Coincidences of interests also are not confined to those of a political and economic sort alone, but these are so striking as to permit us to describe them as major characteristics of social classes.

4.

SOCIAL STATUS AND CHILD-REARING PRACTICES

By Martha C. Ericson

The main problem of this investigation was to test the hypothesis that, since differing social classes represent different learning environments for children, systematic differences in child-rearing practices could be found. A secondary problem of the investigation was to study the effects of training procedures on the development of personality.

The procedures used included interviewing of 100 mothers, of whom forty-eight were middle class, and fifty-two were lower class. A guided interview schedule was developed for this purpose. Histories of training procedures were obtained for 107 middle-class children and for 167 lower-class children.

No matter how highly divergent the culture into which they are born, all children in this country are born into an American culture. In the United States, there are at least two kinds of cultural influences which are operative in the formation of behavior patterns. One is the broadly defined "American" culture which sets American citizens apart from those of other nations. The second is the cultural differences arising from social-class differences existing within this broadly defined cultural framework. A child born and reared in the United States is recognizable as an American child as distinguished from children of other racial or national groups.

Children and adults of the same national groups, however, are also distinguishable one from the other on the basis of differing personality patterns. Even when genetic factors are held as constant as possible—that is, when there are several children of the same parents in a given family—children are distinguishable one from the other. Wide variations in personality and temperament are found even among siblings. Children of the same family may also vary considerably with regard to intelligence level, strength of physical drive, responsiveness to cultural demands, and physical status. Knowledge of all the factors concomitant with personality development is by no means complete. It is, at the present time, impossible to sift out all the associated factors since the variables are so numerous. Certain fortuitous circumstances are among the variables which operate to change or modify behavior and personality and add to the multiplicity of factors to be considered. Among these fortuitous circumstances which may operate to influence personality structure are differences resulting from birth order, changes in the family structure, rejection by one or both parents, the number and sex of siblings, and the loss of one or both parents.

Changes in each of the variables resulting from the operation of fortuitous circumstance may be presumed, therefore, to produce patterns of response or behavior which are very different, and which result in well-marked personality differences. These variables are not only extremely numerous, but they are, furthermore, unpredictable and constitute the unique quality of experience or life history of each individual.

There are thus at least three sets of variables to be considered in the development of personality structure: (1) those arising from the differences in genetic constitution; (2) those arising from the

From "Quantified Interview Data at Two Class Levels, Rather Closely Paralleling for Whites the Davis-Dollard Data for Negroes," a paper read at the American Psychological Association's 1946 meeting.

influence of the fortuitous circumstance or life-history experience, and (3) those arising from cultural differences. The purpose of this paper is to deal only with the last of these variables, namely that of the cultural influences upon personality as they are mediated through the social classes.

With the exception of the social anthropologists, few of the workers in the field of child development have taken into account cultural factors as they operate in influencing personality development of children. The patterns of physical growth and maturation are roughly the same for the gold-coast child and the tenement child, but the socializing factors influencing the personality development of these children are literally in two different worlds. Children in both of these highly differentiated social classes, however, are subjected to the same demands of the total culture, that is, regardless of class position each will have to achieve learnings in certain crucial areas, such as weaning and cleanliness training. The child, unless he is an only child, will have experiences with siblings, and will learn controls against aggression and against exploration of his own body and of the environment. Certain expectations for the child will be held on the part of the parents of each. These include education, earning a living, and becoming a functioning member of the family unit. Privileges concomitant with age will be granted each child as he grows up and is inducted into the cultural life of his family and its social groups.

These basic learnings are assumed to occur in the development of all children. The manner in which each of these crucial trainings is managed by the parents is, however, a reflection of their own cultural group and their social participation. Weaning, for example, is a learning which takes place in all cultures, but the method by which this learning is managed varies with culturally typed forms of behavior.

Part of the reason why lay writers and others concerned with the development of young children have not recognized class differences is that relatively little has been known of these differences in training as they exist in the various social classes. Since most psychologists are themselves of middle-class origin, they have assumed, on the basis of the patterns known to them, that the middle-class way of training is applied to all children regardless of class differences.

Middle-class life is highly demanding and the training of children begins with birth. The middle-class child is usually held to feeding schedules which are more or less rigidly defined. The lower-class child may be fed at will or whenever it cries. The middle-class child is expected to have established habits of cleanliness many months before the lower-class child. The standards or norms for early achievement are thus seen to be more demanding in the life of the middle-class child than in the life of the lower-class child.

Although there have been some studies dealing with comparisons of "privileged" and "underprivileged" children, there appears to have been only one other study[1] which has attempted to deal with systematic class differences in child-rearing practices.

Anderson's differentiation of the social classes was made on the basis of the Minnesota Scale for Occupational Classification; this scale did not take into account some of the other factors used for purposes of social stratification in the present study (education of grandparents, parents, and parents' siblings, occupation of parents' siblings, and land ownership of parents).

The method of interviewing in the present study provided for extended

[1] John Anderson. *Young Child in the Home* (New York: D. Appleton-Century Co., 1936).

comments on the part of the mothers rather than for answers which were adapted to the mechanics of Hollerith analysis as in Anderson's study. The interviewing in the present investigation was done by specifically trained people rather than by members of various social and child-welfare agencies as in Anderson's investigation; hence the results of the two investigations are not strictly comparable.

Extensive Interviewing

In order to obtain data on a large number of middle- and lower-class families, a schedule for a guided interview was developed by Allison Davis. This schedule consisted of eighteen pages of questions and was intended to be used with mothers of children between the ages of one and seven years since it was felt that mothers of children between these ages would be likely to give relatively more accurate information than mothers of children beyond the ages of seven years.

The schedules for the guided interview were divided into two parts, the first of which attempted to deal with the child as an individual in recording his progress through the crucial areas of training such as weaning and cleanliness training. The second part of the interview dealt with family expectations for school training, ages at which children would be given various age- and sex-privileges and responsibilities, and data concerning the background of the parents.

The data obtained with reference to the parents included the occupation of both parents, the education of the parents, and the education and occupation of the parents' siblings. Club membership of parents and land ownership of both grandparents and parents were also included. The items which dealt with the parents were used for purposes of placing the families on a social scale.

The interview schedules were arranged so that answers given by the mothers could be recorded verbatim. The interviewing was done by five women, three of whom were students working for advanced degrees, one of whom was a primary grade teacher, and one of whom was then working toward the completion of a college degree. Before any interviewing was done, a conference of about two hours' length was held with each interviewer to explain the nature and purpose of the interview schedule. These schedules were checked by the writer as they were completed.

The time required to complete an interview schedule varied with the skill of the interviewer and the verbal ability of the mother; most of the interviews required from one to three hours for completion. The scheduling of the interviews was arranged so that the interviewers could talk freely with the mothers as the answers to the questions were recorded.

The Sample. The forty-eight middle-class mothers who were interviewed were of relatively stable middle-class status and ranged from lower middle- to upper middle-class. Of the total group interviewed, there were twenty-three mothers in the Hyde Park area, seven in the Englewood area, ten in the Marshall Field Garden Apartments on the near north side of Chicago, and eight in the outlying areas of the south side of the city. These mothers were reached through nursery schools and through child study groups. There were 107 children in this sample; all children whose histories were recorded were normal children.

The fifty-two lower-class mothers who were interviewed were of relatively stable lower-class status and were, for the most part, upper lower class. Of the lower-class mothers who were interviewed, there were ten in the Hyde Park area, twenty-nine in the area of the South Chicago Community Center, and thirteen mothers in the Woodlawn area. There were 167 children in this group. All children

whose histories were recorded were normal children.

Characteristics of Middle- and Lower-class Families. The data used for purposes of stratification in this study included the education of maternal and paternal grandparents of children in the study, the occupation and education of parents of children in the study, and the occupation and education of the parents' siblings. Club membership of parents and land ownership of both grandparents and parents were also included, as well as the present ages of parents, marriage age of parents, and ethnic groups of parents. Neighborhood and house type were not used for purposes of stratification because of the complexity of the communities represented. The stratification of the families was done by a member of the research staff who was an expert in problems of stratification, and by the writer.

The differences to be found between middle- and lower-class families are clearly group differences. There are unquestionably many families, both middle- and lower-class, which, upon closer examination, would deviate markedly from the central tendencies found in this study. The findings with regard to these two groups, however, are clearly enough differentiated that generalizations can be made about the characteristics of middle- and lower-class families. The factors used in stratification should, however, be considered as a totality, since there is no single criterion which can be assumed to determine class position.

In the middle-class families, it was found that the educational level of both maternal and paternal grandparents was higher than that of the grandparents in the lower-class families. The educational level of the parents and of the parents' siblings was also higher in the middle-class families than in the lower-class families. The occupations of middle-class parents and parents' siblings fell into the first four categories (the highest) of the seven-point occupational classification developed for this study, while the occupations of the lower-class parents and parents' siblings fell mainly into the lowest three categories of the occupational classification.

Method of Statistical Analysis. The data from the guided interview schedules were coded and recorded for punching on Hollerith cards. A Hollerith card was punched for each of the 374 children in the study, and for each of the 100 families in the study. The cards for individual children included a family number, social class, sex, number of children in the family, birth order of the child, age in years at the time of the interview, and answers to questions on individual progress through the crucial areas of training. The cards for families included family number, social class, number of children in the family, and answers to the questions concerning family expectations for the children.

When distribution and frequency tables had been made from the Hollerith analysis, it was found that many of the distributions on the data related to the training procedures had some extreme cases, and for this reason, medians rather than means were computed, since medians are less likely to be modified by the extreme cases than the mean. Percentages were also computed on ages at which various learnings took place and so on, as well as the significance of the difference at the 5 percent level.

Some of the differences found were not statistically significant, but it should be remembered that the sample was small, and that these differences, in order to be reliable, had to be relatively large. The differences that were found, therefore, were important ones.

Results

The hypothesis which this study investigated was that systematic differences with reference to training in the crucial areas could be found. The general

TABLE 1

LENGTH OF BREAST AND BOTTLE FEEDING

Experience	Middle class		Lower class	
	Number reporting	Median no. months	Number reporting	Median no. months
1. Length of breast feeding *	75	3.8	114	4.9
2. Length of bottle feeding *	95	10.7	123	12.9
3. Sucking finished *	99	10.5	147	12.8

* Indicates that difference is significant.

TABLE 2

FEEDING AND ORAL HABITS

Experience	Middle class		Lower class	
	Number/ total	Percent	Number/ total	Percent
1. Children breast fed one month or more	76/106	71.6	118/183	72.3
2. Children breast fed longer than three months	34/106	32.0	63/163	40.5
3. Children who sucked more than 12 months *	21/99	21.2	66/147	44.9
4. Number of children fed at will *	3/106	2.8	53/153	34.6
5. Number of children held for feeding *	48/74	64.9	44/138	31.9
6. Number of children who sucked thumb *	54/105	51.4	30/166	18.1

* Indicates that difference is significant.

areas explored were those of weaning, thumbsucking, cleanliness training, environmental exploration and control, and age- and sex-roles. Differences were found in certain areas; these were primarily in feeding, cleanliness training, environmental exploration and control, and age- and sex-roles.

Middle-class families were generally found to be more exacting in their expectations for children with reference to the learning of habits of feeding, cleanliness training, environmental exploration and control, and age- and sex-roles. Training was generally begun earlier in the middle-class than in the lower-class families. In the middle-class families, there was more emphasis on the early assumption of responsibility for the self, closer supervision of children's activities, and greater emphasis on individual achievement.

Early Feeding Experiences. The findings with regard to early feeding experiences are shown in Tables 1 and 2. Significant differences are those marked with an asterisk. In the middle-class families, fewer children are breast fed

TABLE 3

AGE AT WHICH BOWEL TRAINING WAS BEGUN AND COMPLETED

Experience	Middle class		Lower class	
	Number reporting	Median no. months	Number reporting	Median no. months
1. Bowel training begun *	99	7.5	158	10.2
2. Bowel training complete	91	18.4	152	18.8

* Indicates that difference is significant.

TABLE 4

AGE AT WHICH BLADDER TRAINING WAS BEGUN AND COMPLETED

Experience	Middle class		Lower class	
	Number reporting	Median no. months	Number reporting	Median no. months
1. Bladder training begun *	93	11.2	156	12.2
2. Bladder training complete . . .	81	24.6	139	24.0

* Indicates that difference is significant.

than in the lower-class families; where they are breast fed, they tend to be breast fed for a shorter period of time than the lower-class children. Many fewer middle-class children than lower-class children are completely breast fed. Middle-class children also tend to be bottle fed for a shorter period of time than are the lower-class children. Three times as many middle-class children as lower-class children were reported as thumbsuckers.

Cleanliness Training. The findings with regard to the establishment of bowel control are shown in Table 3. Significant differences are those marked with an asterisk. Training for bowel and bladder control was considered to be complete when the child was voluntarily able to inhibit defecation and urination and when he was able to state these needs to the mother.

Middle-class families begin training their children for bowel control earlier than do the lower-class families, although the middle-class children do not achieve control earlier than the lower-class children. Boys in both classes were found to be more difficult to train than girls.

The findings with reference to the establishment of bladder control are shown in Table 4. Bladder training is begun earlier in middle-class families than in lower-class families although control is established at about the same time in children of both classes. Boys in both classes were found to be more difficult to train than girls.

Age Expectations and Sex-roles. Several class differences in age-expectations and sex-roles were found. The main differences found were that children in middle-class families were expected to assume responsibility in the home earlier than were the lower-class children. Children in the middle-class families are

TABLE 5

AGE WHEN CHILD IS TO BEGIN HELPING AT HOME

Age	Middle class		Lower class	
	Number	Percent[a]	Number	Percent[a]
No answer	7		1	
2–5 years*	24	58.5	18	35.4
6–8 years	13	31.7	23	45.0
9–12 and over	4	9.8	10	19.6
Total replying	41	100.0	51	100.0

* Indicates that difference is significant.
[a] Percentages based only upon those reporting.

TABLE 6

AGE AT WHICH GIRLS BEGIN TO COOK

Age	Middle class		Lower class	
	Number	Percent[a]	Number	Percent[a]
No girls in family	7		9	
No answer	10		3	
4–7 years	7	22.6	1	2.5
8–12 years*	24	77.4	39	97.5
Total replying	31	100.0	40	100.0

* Indicates that difference is significant.
[a] Percentages based only upon those reporting.

expected to begin helping at home earlier than children in lower-class families as shown in Tables 5 and 6; middle-class girls are expected to begin cooking and sewing before the lower-class girls. Class differences were also found with regard to environmental exploration and control. The middle-class boys and girls were expected to be in the house earlier at night than the lower-class boys and girls. The lower-class boys and girls begin going to the movies alone earlier than the middle-class boys and girls, and many more of the lower-class boys and girls are paid for working than were the middle-class boys and girls. The school- and work-expectations for middle-class children show that they are expected to prepare themselves for some profession.

SUMMARY AND CONCLUSIONS

The results of this investigation show that there are systematic social class differences with regard to the training of children in the crucial areas. The results also show that there are cultural differences which can be sufficiently verified to prove that middle-class children and lower-class children live in well differentiated worlds.

In the middle-class families there is more emphasis on the early achievement of learnings in the crucial areas, although the data show that even though the

training is begun earlier, it is not necessarily achieved any earlier. Middle-class children are probably subjected to more frustrations in the process of achieving these learnings and are probably more anxious as a result of these pressures than are the lower-class children. Lower-class families tend to be more permissive than the middle-class families in the training of their children in all areas.

Children in the middle-class families are taught to assume responsibility early. Middle-class children are more carefully supervised in their activities than are the lower-class children. Middle-class children have many fewer unsupervised play activities and less free time than do the lower-class children. Middle-class life is in general more demanding with reference to all learning areas. The children are taught to respond to the demands of the social group in which they live. The early assumption of responsibility on the part of the middle-class children was not what we had expected; we had anticipated that lower-class parents would expect the early achievement for their children in assuming responsibility in the home. Apparently the middle-class children are taught this task by the parents relatively early while the lower-class children are not taught this task until the learning is relatively easy for them.

Middle-class children are taught ways of living that will prepare them to become financially independent, to assume positions of responsibility in the home and community, and to become responsible citizens of the culture in which they live.

The lower-class children are reared in families in which life is less strictly organized, and fewer demands are made upon them. They probably do not meet as many frustrations as do the middle-class children. The demands of the social group in lower-class life are not as exacting as they are in middle-class life.

From the standpoint of sociology, this investigation bears out the general theory that membership in a social class is an important influence on personality development and that there are numerous significant differences in social class groups with reference to child-rearing practices.

XII

Prejudice

1.

THE MEASUREMENT OF SOCIAL DISTANCE *By Emory S. Bogardus*

By the social-distance recording method a total of 1,725 Americans (including the 700 persons from whom personal experiences were secured) have given their racial reactions in forms which may be tabulated. This evidence comes from persons who are representative in many ways of the better class and thinking Americans, from Americans living in different parts of the United States—the East, South, Middle West, and West, from both sexes, from different occupations, from persons of different ages, different religions, different educational levels, and different racial descent. All, however, are native born, and represent in the main the younger middle class; they also are persons possessing a high-school or college education, and hence speak for the more thoughtful and forward-looking members of American life rather than for narrow-minded, older, or conservative Americans. The aim has not been to make a survey of as large numbers as possible but to penetrate as far beneath the surface as possible in a limited number of cases.

As is true of Americans in general, the 1,725 Americans are descended from many different races, but chiefly from northern Europeans. Table 1 gives racial-origin data.

TABLE 1

RACIAL DESCENT OF 1,725 NATIVE-BORN AMERICANS

English	772	Chinese	14
German	328	Mexican	13
Irish	264	Danish	11
Scotch	205	Armenian	9
Negro	202	Russian	9
Jew	178	Polish	7
French	96	Czechoslovak	6
Italian	95	Greek	6
Dutch	81	Magyar	6
Swedish	70	Filipino	4
Canadian	64	Portuguese	3
Norwegian	51	French-Canadian	3
Welsh	39	Hindu	3
Spanish	38	Indian (American)	3
Japanese	18	Serbian	1

From *Immigration and Race Attitudes* (Boston: D C. Heath & Co., 1928). Reprinted by permission of the author and the publisher.

TABLE 2

REACTIONS OF 1,725 AMERICANS TO 40 DIFFERENT RACES IN PERCENTAGES

Race	1 Would admit to close kinship by marriage	2 Would admit to my club as personal chums	3 Would admit to my street as neighbors	4 Would admit to employment in my occupation	5 Would admit to citizenship in my country	6 Would admit as visitors only to my country	7 Would exclude from my country
English	93.7	96.7	97.3	95.4	95.9	1.7	0
Americans (native white)	90.1	92.4	92.6	92.4	90.5	1.2	0
Canadians	86.9	93.4	96.1	95.6	96.1	1.7	0.3
Scotch	78.1	89.1	91.3	92.8	93.3	1.7	0
Scotch-Irish	72.6	81.7	88	89.4	92	16.7	0.4
Irish	70	83.4	86.1	89.8	91.4	4	0.7
French	67.8	85.4	88.1	90.4	92.7	3.8	0.8
Welsh	60.8	72.3	80	81.4	86	5.4	0.3
Germans	54.1	67	78.7	82.6	87.2	6.7	3.1
French-Canadians	49.7	66.4	76.4	79.3	87	4.4	0.8
Swedes	45.3	62.1	75.6	78	86.3	5.4	1
Dutch	44.2	54.7	73.2	76.7	86.1	2.4	0.3
Norwegians	41	56	65.1	72	80.3	8	0.3
Danes	35	52.2	65.5	71.4	80.1	4.5	0.9
Spaniards	27.6	49.8	55.1	58	81.6	8 4	2
Finns	16.1	27.4	36.1	50.5	61.2	12.8	2.8
Russians	15.8	27.7	31	45.3	56.1	22.1	8
Italians	15.4	25.7	34.7	54.7	71.3	14.5	4.8
Portuguese	11	22	28.3	47.8	57.7	19	3.3
Poles	11	11.6	28.3	44.3	58.3	19.7	4.7
Hungarians	10.1	17.5	25.8	43	70.7	20.3	7
Rumanians	8.8	19.3	23.8	38.3	51.6	22	4.6
Armenians	8.5	14.8	27.8	46.2	58.1	17.7	5
Czechoslovaks	8.2	16.4	21.1	36	47.4	26	9.5
Indians	8.1	27.7	33.4	54.3	83	7 7	1.6
Jews, German	7.8	22.1	25.5	39.8	53.5	25.3	13.8
Bulgarians	6.9	14.6	16.4	19.7	43.1	21.9	7
Jews, Russian	6.1	18	15.7	30.1	45.3	22.7	13.4
Greeks	5.9	17.7	18	35.2	53.2	25.3	11.3
Syrians	4.3	13.8	18	31	41.1	21.4	9
Serbo-Croatians	4.3	10.4	12	10.3	30.4	18.6	8
Mexicans	2.8	11.5	12.3	77.1	46.1	30.8	15.1
Japanese	2.3	12.1	13	27.3	29.3	38.8	2.5
Filipinos	1.6	15.2	19.5	36.7	52.1	28.5	5.5
Negroes	1.4	9.1	11.8	38.7	57.3	17.6	12.7
Turks	1.4	10	11.7	19	25.3	41.8	23.4
Chinese	1.1	11.8	15.9	27	27.3	45.2	22.4
Mulattoes	1.1	9.6	10.6	32	47.4	22.7	16.8
Korean	1.1	10.8	11.8	20.1	27.5	34.3	13.8
Hindus	1.1	6.8	13	21.4	23.7	47.1	19.1

TABLE 3

REACTIONS OF 202 NATIVE AMERICAN NEGROES AND MULATTOES TO 17 RACES IN PERCENTAGES

Race	1 Would admit to close kinship by marriage	2 Would admit to my club as personal chums	3 Would admit to my street as neighbors	4 Would admit to employment in my occupation	5 Would admit to citizenship in my country	6 Would admit as visitors only to my country	7 Would exclude from my country
Negroes	96	94	94	90	92	8	0
Mulattoes	52	66	70	70	70	10	2
French	32	60	80	76	72	16	2
Spaniards	26	40	56	46	64	24	8
English	16	42	72	72	76	14	0
Canadians	14	42	62	64	68	22	2
Mexicans	8	20	20	28	28	28	8
Americans (native white)	6	34	66	72	74	0	0
Hindus	6	12	16	20	18	40	20
Japanese	6	28	30	34	40	36	8
Germans	4	22	42	44	34	30	10
Italians	4	10	20	34	34	32	8
Chinese	2	16	18	28	24	44	20
Jews, Russian	2	12	18	24	30	34	10
Greeks	2	12	20	24	26	38	12
Russians	0	8	10	16	30	34	20
Turks	0	6	10	16	14	38	26

These Americans have given their reactions to forty different racial and language groups, including "Americans" themselves. Seven different ways of expressing racial reactions were provided: namely, with reference (1) to marriage with a member of another race, (2) to having members of another race as chums in one's social club, (3) as neighbors, (4) as members of the same occupation, (5) as fellow citizens, (6) to allowing such persons to enter one's country as visitors only, and (7) to excluding them altogether.

Table 2 presents the reactions of the 1,725 Americans arranged in a descending order of favorable marriage reactions (column 1). According to these marriage reactions, the English are given first place (as in the racial-origin table, Table 1). Of the 1,725 Americans, 93.7 percent record a willingness to marry members of the English race (not the best or the worst members, but members whom they consider representative or average). Only 1.1 percent would willingly marry representative Chinese, mulattoes, Koreans, or Hindus, and hence the percentages for these are the lowest.

Practically all the northern European races rate high in the sympathetic attitudes of Americans; for the latter, being largely of northern European ancestry, react in friendly ways toward their own racial connections. In the large, blood relationships after all operate strongly in matters of racial understanding and good will.

At the bottom of the columns, or ex-

TABLE 4

REACTIONS OF 178 NATIVE-BORN JEWS TO 18 RACES IN PERCENTAGES

Race	1 Would admit to close kinship by marriage	2 Would admit to my club as personal chums	3 Would admit to my street as neighbors	4 Would admit to employment in my occupation	5 Would admit to citizenship in my country	6 Would admit as visitors only to my country	7 Would exclude from my country
Jews, German	94.3	97.1	97.1	100	98.5	1.4	1.4
Jews, Russian	84.3	91.4	91.4	95.7	100	0	0
English	80	95.7	98.5	95.7	98.5	1.4	0
French	54.3	84.3	94.3	98.5	98.5	7.1	0
Germans	52.8	81.4	92.8	100	91.4	5.7	0
Irish	34.8	71.4	87.1	95.7	95.4	2.8	2.8
Scotch	34.3	71.4	88.5	90	92.8	2.8	2.8
Spaniards	24.3	50	64.3	80	91.4	31.4	1.4
Armenians	14.3	38.6	45.9	64.3	70	10	1.4
Italians	11.4	45.9	55.7	72.8	91.4	1.4	1.4
Mexicans	4.3	24.3	28.5	44.3	50	15.9	19.1
Japanese	2.8	18.5	21.4	28.5	32.8	35.7	28.5
Turks	2.8	19.1	27.1	41.4	58.5	32.8	14.3
Greeks	2.1	27.1	34.3	55.7	75.7	8.5	1.4
Chinese	1.4	18.5	21.4	28.5	32.8	34.3	32.8
Hindus	1.4	14.3	21.4	30	24.3	41.3	14.3
Filipinos	0	20	27.1	41.4	57.1	17.1	7.1
Negroes	0	15.9	27.1	42.8	72.8	15.9	10

periencing the antipathetic attitudes of Americans, are the Asiatic and African races, with southern and eastern European races next in order. Attitudes of racial superiority, particularly of Nordic superiority, often explain American antipathies. The important question arises: Why the extensive social distance between Americans on one hand and Asiatics and Africans on the other?

As indicated in Table 3, a case group of 202 native-born Negroes and mulattoes of high-school and college education, chiefly from the southern states, naturally put Negroes and mulattoes at the top of their racial preferences. French and Spanish come next. Asiatic races are put on the lower preference levels, which is accounted for in part by the influence of the American cultural environment. The reactions in this particular are similar to the reactions of white Americans.

A trend indicated in Table 4, showing the recorded reactions of a case group of 178 native-born American Jews, is the natural first preference for people of their own race. The second line of preference is for people of northern European descent. Adverse reactions to Asiatics are to be noted, although the antipathetic attitudes toward Turks is much less pronounced than among non-Jewish Americans.

One influence of the culture contacts of the Jews, as distinguished from the influence of racial factors in the biological sense, is marked. It is possible to discern the influence of American culture patterns upon the Jews. By the applica-

tion of a refined statistical procedure to the data now available, it might be possible to measure the degree of Americanization not only of the Jews but of many immigrant races.

The summary of the whole matter may be concentrated in the one word, *status*. Where a person feels that his status or the status of anything that he values is furthered by race connections, there racial good will is likely to be engendered. But where a person's status or the status of anything that he values is endangered by the members of some race, then race prejudice flares up and burns long after the "invasion" has ceased.

2.

DEVELOPMENT OF ATTITUDE TOWARD NEGROES

By Eugene L. Horowitz

At present, approximately every tenth man in the United States is a Negro. Against one tenth of the total population of this country there exists today an attitude which finds expression in social derogation, judicial discrimination, and severe circumscription of educational and industrial opportunities. Ample justification for the study of the attitude toward the Negro in the United States may be found in the consequence of its functioning, as well as in the needs of a scientific social psychology. Our problem, specifically stated, was *to study systematically in an objective fashion the development in white children of attitudes toward Negroes.*

Current theories accounting for race prejudice are phrased chiefly in terms of sexual factors, in terms of the historical derivation of the Negro's present status, and in terms of the present economic organization of society. Attempts at control, in view of these theories, were made by testing boys only, with boys' materials; testing quite young children; testing groups from different social and economic levels. Three tests were developed and applied to several hundred boys in New York City, in an all-white school (with a retest after six months) and in one grade in a mixed school, and in a small group of communist children; in urban Tennessee; and in urban and rural Georgia. The data were analyzed so as to shed light on the process of the development of race prejudice as well as to compare the effects of the factors operative in the various groups tested on the degree of prejudice.

The Tests

Our plan was to test the attitude of white boys—kindergarten through the eighth grade, in New York and in the South—toward Negro boys.

The objective means employed in this study were three tests specially devised and standardized for the investigation. All three tests involved the presentation of pictorial material to children and the recording of responses to the standardized situations.

Two kinds of materials were used for the three tests. The two tests which will here be called the "Ranks" and the "Show Me" tests utilized the same page of children's faces. Photographs of posed social situations served for the "Social Situations" test.

The page of faces used for the Ranks and the Show Me tests was a half-tone cut, which presented twelve boys' faces,

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three rows of four faces in a row. Directly underneath each face was an identifying letter, from A to L.

From a photographic canvass of several settlement houses in New York City, a large number of faces was collected. These were then judged for racial typicality and general pleasantness by four white people, adults, who had had wide contact with the Negro race. The same judges rated a group of white faces which had been collected during the same survey for equivalent qualities. Without statistical elaboration, four white faces and eight Negro faces were selected on the basis of the judgments, twelve faces which were deemed to be racially typical and pleasant by the adults who did the rating. The faces do not represent adequately the varieties which are to be found in both groups; it was sufficient for the purposes of the study that the racial character of each face be unequivocal.

The task involved in the Ranks test was ranking the faces in the order in which they were liked—"Pick out the one you like best, next best, next best," and so on until they were all ranked.

For the Show Me test, the children selected companions for a variety of imagined situations. On each occasion, no limit was placed on the selections; as many boys could be chosen as the child might want; and on successive occasions, the same or different boys might be selected. For this test the situations were:

1. Show me all those that you want to sit next to you on a streetcar.
2. Show me all those that you want to be in your class at school.
3. Show me all those that you would play ball with.
4. Show me all those that you want to come to your party.
5. Show me all those that you want to be in your gang.
6. Show me all those that you want to go home with you for lunch.
7. Show me all those that you want to sit next to in the movies.
8. Show me all those that you would go swimming with.
9. Show me all those that you'd like to have for a cousin.
10. Show me all those that you want to be captain of the ball team.
11. Show me all those that you want to live next door to you.
12. Show me all those that you like.

Scoring the Ranks test was by summing the ranks assigned the four white faces. If these faces were ranked 1, 2, 3, 4, the score was $1 + 2 + 3 + 4 = 10$; if they were ranked 1, 2, 5, 9, the score was 17. The lower the score, the greater the preference for the white faces. The possible range was from 10 to 42. If the ranking had been done by chance, the score might be expected to be 26. Deviation from the chance expectancy may be taken as indicative of the operation of a bias.

Scoring the Show Me test was by finding the relative frequency with which the white faces were selected for all activities, expressed as a percent. The number of companions selected for all twelve items of the test was determined, then the number of those selections which were of the white boys (maximum, of course, 48); the frequency of the white choices was then computed as a percent of the total number of selections. Since of twelve faces, four were white, if the selections of companions were made on a chance basis, the score might be expected to be $33\frac{1}{3}$ percent. Deviation from the chance expectancy may be taken as indicative of the operation of a bias.

On these two tests, the interpretation of the scores is this: on the Ranks test scores below 26 show preference for white as compared with Negroes (the smaller the score, the greater the preference); on the Show Me test, scores above $33\frac{1}{3}$ percent show prejudice for white as compared with Negroes (the higher the score, the greater the prejudice against Negroes).

The third test used, the Social Situa-

tions test, in its original form consisted of a set of thirty photographic prints, later increased by nine. The purpose of the test was to discover whether children would reject participation in an activity because of the inclusion of a Negro. Fifteen posed situations were photographed twice, once posed by four white boys, and once again, without other change, substituting a Negro lad for one of the original group. The thirty photographs were then arranged in an order such that in eight of the fifteen situations the mixed group preceded the all-white group; while for the remaining seven, it followed. The general order was such that the situations appeared in random order, paired photographs being widely separated, in general.

The situations photographed might be briefly characterized: marbles, choosing sides for baseball, hand-wrestling, sitting around weary outdoors, lavatory, workshop, playing piano, radio, checkers, museum, library, school, in ice cream parlor, at home eating dinner. The task for the child on this test was to look at each picture, separately, each in its turn, and report whether or not he wanted "to join in with them and do what they're doing along with them." The children had the option of saying "Yes," "No," or registering an indeterminate attitude. This test was scored by assigning points on the basis of desire to participate: each "Yes" was awarded three points, the "?" two points, and the "No" one point. Summation was then made of the score for desire to participate in the fifteen all-white situations, and separately for the fifteen situations which included the one colored boy. The numerical differences between the summations so derived were taken to represent prejudice scores. For the fifteen situations, the difference between the all-white groups and those with one colored boy might range from zero to plus or minus thirty, depending on degree and nature of prejudice. If the responses of the children were without bias, the prejudice score would be, of course, zero; the children would respond, in general, on the basis of the activities so that variations introduced in composition of the groups would not matter.

The three tests thus give three measures, each permitting a response by the test subjects which would or would not show the operation of a bias, a direct index of response on the basis of the racial characters of the test-situations. "Experimental controls" were introduced into the tests to permit reading off a "prejudice" score.

Results

The interest in this study was chiefly in the development of social attitudes. Group differences in school grade were taken to correspond to group differences in age. The analysis of the test scores, from the point of view of genetic development, was made by fitting regression lines by a least-squares fit to the original scores and testing the coefficients for significance. The equations describe the curves formed by the test scores when studied from the point of view of regression of prejudice on age (grade). The adequacy of the equations is indicated by the standard errors of the coefficients (S_a, S_b, etc.). This form of analysis permits a precise mathematical test of the goodness of the fit of the derived curves. Table 1 presents this analysis. [A "first order" equation of the general form $y = a + bx$ represents a straight line. A "second order" equation of the general form $y = a + bx + cx^2$ represents a negatively accelerated curve. In Table 1, y is the symbol for the individual's test score; a is the symbol for the constant which describes the general score level of the curve; b is the essential slope or angle of the curve; c is the coefficient which, when significant, defines the tendency of the curve to "flatten out," x represents the individual's school grade and $\bar{x}$ is the mean grade position of the entire

TABLE 1

REGRESSION EQUATIONS FOR THE THREE TESTS

y = score $\bar{x} = 4.078$
x = grade n = degrees of freedom

First order $y = a + b(x - \bar{x})$

Test	a	b	s_a	s_b	b/s_b	n
Ranks	14.9	.04	.955	.12	.33	470
Show Me	65.0	2.27	.953	.39	5.8	470
Social Situations	1.303	.300	.215	.088	3.42	470

Second order $y = a + b(x - \bar{x}) + c(x - \bar{x})^2$

Test	a	b	c	s_a	s_b	s_c	b/s_b	c/s_c	n
Show Me	69.65	1.89	−.78	1.39	.39	.17	4.8	4.6	469
Social Situations	1.28	.30	.004	.318	.090	.039	3.33	.10	469

sample (4.078). Thus the expression $(x - \bar{x})$ stands for the child's grade position as a deviation from the mean; n represents the degrees of freedom, derived from the number of cases and the form of analysis; s is the standard error for the coefficient in the equation indicated in its subscript. A coefficient divided by its standard error (e.g., b/s_b) is a "critical ratio" which provides the basis for an estimate of the probability of finding a like-sized coefficient "by chance." Where b (roughly, the slope coefficient) is more than three times its standard error (s_b) we can assume the curve meets the customary requirements of statistical tests of significance and the regression equation represents a curve with a "significant" slope; where the coefficient is relatively small in the light of its standard error, we can have little confidence in its significance (thus, in Table 1, the second order equation for the Social Situations test shows a reliable slope, $b/s_b = 3.33$, and an unreliable "flattening," $c/s_c = 0.10$; while the Show Me test has both a reliable slope, $b/s_b = 4.8$, and a reliable flattening, $c/s_c = 4.6$).]

These equations demonstrate that the Ranks test scores yield a growth curve which can best be described as a straight line with no reliable slope. The Show Me test scores yield a negatively accelerated curve. The scores of the Social Situations test conform to a curve which is a straight line with a reliable positive slope.

Investigating the difference in the shapes of the curves, regression lines were fitted to the reduced score differences among the curves. The various coefficients were found to be reliable, as Table 2 presents, indicating that there were reliable differences in the shapes of the curves.

Differences in percentage representing the number of children showing prejudice on comparable items confirms the suggestion from the curve analysis that there is a real difference between the tests. Ranking faces in the order that you like them is a task in which there is greater proneness to display prejudice than one in which children are asked to show all those that they like. Also, there is more proneness to display prejudices in selecting playmates for an activity than in expressing a desire to refrain from partici-

TABLE 2

REGRESSION EQUATIONS FITTED TO REDUCED SCORE DIFFERENCES AMONG THE CURVES

y = difference $\bar{x} = 4.078$
x = grade n = degrees of freedom

First order

Difference	a	b	s_a	s_b	a/s_a	b/s_b	n
Show Me–Ranks	.00055	.1064	.0415	.0170	.0130	6.259	469
Soc. Sit.–Ranks	.00081	.0562	.0575	.0235	.0140	2.389	469
Show Me–Soc. Sit.	.00066	.0507	.0658	.0269	.0100	1.884	469

Second order

Difference	a	b	c	s_a	s_b	s_c	a/s_a
Show Me–Ranks	.1398	.0952	−.0232	.0609	.0172	.0075	2.296
Soc. Sit.–Ranks	−.0943	.0636	.0156	.0851	.0240	.0105	1.108
Show Me–Soc. Sit.	.2289	.0320	−.0390	.0965	.0272	.0119	2.372

Difference (*continued*)	b/s_b	c/s_c	n
Show Me–Ranks	5.535	3.093	468
Soc. Sit.–Ranks	2.650	1.486	468
Show Me–Soc. Sit.	1.176	3.281	468

TABLE 3

FIRST ORDER REGRESSION EQUATIONS FITTED TO THE z-FUNCTION EQUIVALENTS OF COEFFICIENTS OF INTERCORRELATION

$y = z$ x = grade $\bar{x} = 4.0701$

Tests correlated	a	b	s_a	s_b	a/s_a	b/s_b	n
Ranks and Show Me	.7036	.0475	.0326	.0134	21.58	3.545	7
Ranks and Soc. Sit.	.1534	.0321	.0476	.0195	3.222	1.645	7
Show Me and Soc. Sit.	.2320	.0482	.0378	.0155	6.137	3.112	7

pating in an activity because of the participation of unwanted individuals.

These and other analyses tend to lend credence to the view that the tests are intrinsically different, though they all are designed to measure attitudes of children toward Negroes. The interpretation of these differences is discussed below.

With the differences between the tests demonstrated, the next consideration is of the intercorrelations of the tests. These correlation coefficients were tested for trend by fitting regression lines to their z-function equivalents and testing the coefficients of the regression lines for reliability. This is presented in Table 3.

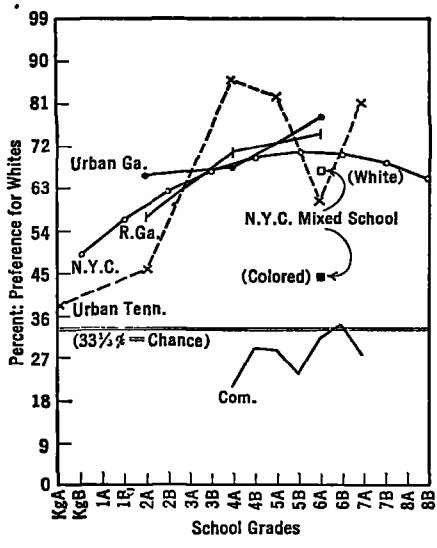


FIG. 1. Prejudice in different groups. Graphic comparison of performance on the Show Me test. Curve for New York City groups is smoothed, from regression equation.

In the table the a/s_a column indicates that the tests are all reliably intercorrelated. From the b/s_b column we see that two of the three curves have a reliable slope, while in the third case, the tendency for the correlation to increase is not reliable. It is felt that this evidence warrants the generalization that though the tests are different, they tend to increase in intercorrelations with increase in the ages of the individuals studied.

Presentation of the results of the testing in the various groups sampled is of interest, primarily, for the sake of permitting comparisons. To facilitate such comparison, the performance on the Show Me test is presented graphically in Figure 1. The comparative aspects of this test are representative of the performance on the other tests.

The children in the New York group showed no less prejudice as measured by the tests than did the children in the South. Comparison of the three Southern groups showed no differences among them, in spite of differences in mode of living represented by sampling rural and urban communities. White boys in a mixed school showed as much prejudice as did white boys elsewhere. The colored boys in the mixed school showed a preference for white faces reliably less than did their white classmates (Show Me $t = 2.93$), yet their mean score was significantly above the "chance" score (Show Me, $t = 2.45$). The children of communists showed no particular prejudice against the Negroes; if anything there seems to be a slight preference for rather than prejudice against.

It might be well to conclude this section, presenting the results of a complicated testing program, with a few words about the subjects. In the interests of "representative sampling," whenever possible, *all* the boys of the desired grade level were taken. Whenever not possible care was taken that all the boys in the chosen classes were tested, and further care was taken that the classes tested were selected as being representative rather than especially good or bad. The only nonschool group tested, the communist children, were selected by arranging, in a cooperative dwelling in New York City run under communist auspices, to test children attending a regular meeting of a representative club conducted as part of the cultural program of the establishment. On the designated night, all boys attending the meeting were tested. Assurances were received that the attendance was representative.

The New York City children, ranging from kindergarten through the eighth grade, have been treated as a unit throughout but actually they came from two schools. One school was tested from kindergarten through the 6B grade (its highest grade) with the thoroughness just described as being generally sought. Another school, located nearby, to which many of the children went after completing the sixth grade work, was used to increase the age range of the subjects. Samples were drawn from the 6B, 7B

and 8B grades. Comparison was made of the means and sigmas of the distributions of the 6B samples from the two schools; their agreement was such as to justify combining the groups and served as basis for adding the 7B and 8B grades and treating the entire range as a whole in the subsequent analyses. The intensive analysis of the developmental trends discussed in the first part of this section was undertaken with data supplied by these children.

Development of an Attitude

Previous sections have demonstrated our inability to present an equation representing the ultimate growth curve of an attitude. For the three tests developed, three different curves have been traced: the Ranks test, a straight line with an unreliable slope; the Show Me test, a negatively accelerated curve; and the Social Situations test, a straight line with a reliable slope.

First, the question of a generalized growth curve may be considered. The data presented need not be considered as conflicting with the applicability of the concept of the S-shaped curve as the generalized description of growth, so fruitfully developed in other fields of psychology as well as in cognate sciences. The three curves derived in this study may merely represent segments from different parts of three S-shaped curves. The tests may be representative of different aspects of the attitude under consideration, each aspect having a different parameter descriptive of its development.

The demonstrated increase in intercorrelations of the tests represents the approach to the adult condition in which the growth of the several aspects has achieved completion. The higher intercorrelation between the Ranks and the Show Me tests than between either of these tests and the Social Situation test may be due largely to the identity of stimulus materials and the similarity of the type of response elicited, but may be partially accounted for by the relative maturity of the aspects tested (see Fig. 2).

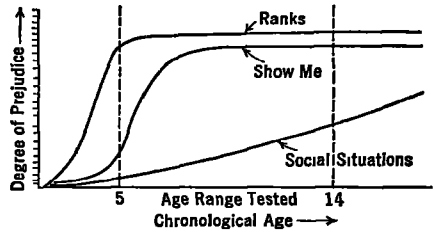


Fig. 2. Theoretical growth curves of attitude.

Two hypotheses for the interpretation of the "aspects" may be considered: the "aspects" may represent aspects of the testing situations, the attitude being a unitary phenomenon; the "aspects" may represent aspects of the responding organism, different response modalities being elicited by the different tests with increased development of the organism resulting in increased integration. It must be remembered that the test performance is a psychological function and the demonstration of differences between the tests means demonstration of psychologically different functions. That the tests are reliably, though not highly, intercorrelated, demonstrates that the functions are psychologically related, though not very closely. The two hypotheses attempting to account for the differences in psychological function both relate to the whole testing situation on each test. There is no attempt made to abstract either the test or the child from the reality of the responding-in-the-test-situation.

It seems likely that adequate description of attitudinal responses must involve consideration of both hypotheses. The concept of threshold of response seems particularly helpful in considering the differences here discussed; but the involvement of different response modes seems no less important. Differences in developmental trends of responses to dif-

ferent groups of questions reported by Minard,[1] where the general threshold of the test situation involved response of a verbal sort on a questionnaire, seem best accounted for chiefly through different combinations of modalities involved. The gross differences reported by LaPiere[2] between verbal and overt behavior with reference to racial attitudes and reactions of hotel keepers and restaurateurs (who accepted Chinese guests, but on a questionnaire said they would not) involve consideration of the differences in threshold of response, as well as the response modalities, required for display of prejudice on a questionnaire and overtly in a business situation.[3]

For the specific description of the process of development of attitudes toward Negroes, it is suggested that attractiveness of Negroes, individually and collectively, is reduced in the course of time below the various thresholds involved for inclusion in life's routine. This diminution probably occurs in almost all activities of the individuals of the population considered; the various response modalities are ultimately all conditioned to approximately similar degrees of prejudice and the result is a relatively integrated attitude.

Attitudes towards Negroes

This suggested description of the development of an attitude involves a continuous process; with reference to attitude toward Negroes, a diminution of the attractiveness of those considered Negroes. Precisely at what age such diminution begins cannot be ascertained from the data at hand. It is apparent, however, that the development of prejudice against Negroes begins very, very early in the life of the ordinary child. Most of the boys of the "younger" kindergarten, boys barely over five years of age, demonstrated a preference for the whites on the Ranks test, the most sensitive of the three tests to small amounts of prejudice. Some few attempts at testing special cases at three and four years of age elicited such comments as (from a three-year-old) "I don't like black boys," and (from a four-year-old) "I don't like colored boys."

Beginning very early in life, the attitude develops gradually. The growth curves, as far as they are plotted, show no sharp breaks, such as might be expected if the attitude depended on the sudden maturation of some physiological aspect of the organism. The suggested theory of the course of development does not preclude unevenness in the process. In individual cases or in some communities, events may be such that for a given time the process is greatly accelerated. For none of the groups tested was there any indication of other than a gradual growth (for some groups the data were insufficient to give any index). The specific evidence of the correlation coefficients computed from a pairing of original scores and a six-month retest on the several grades in the New York City school where such retest was conducted demonstrates more of a constancy of attitude, relative to other members of the grade, than would be expected if the development were other than gradual as an individual as well as a group phenomenon. Not only were group averages going up regularly, but relative position of children within groups was being maintained.

Beginning early and developing gradually, attitudes are derived from diffuse sources, being the result of the interplay

[1] R. D. Minard, "Race Attitudes of Iowa Children," *Univ. of Iowa Stud.: Stud. in Character*, 1931, IV, No. 2, pp. 101.

[2] R. T. LaPiere, "Attitudes *vs.* Actions," *Social Forces*, 1934, XIII, 230–237.

[3] There are other considerations which may be raised concerning LaPiere's findings, e.g., had the questionnaire gone into more explicit verbal description of the scene, there might have been somewhat closer agreement between the expression and the act.

of many diverse environmental factors. The lack of importance of specific experiences in the formation of attitudes is amply illustrated by the lack of difference in amount of prejudice displayed by groups with such varied contacts with Negroes as were tested: (1) with practically no personal contacts except for some few children in whose home there were occasional Negro cleaning women; (2) with school contact with one popular Negro lad for about four months; (3) with the great deal of contact implicit in attendance at a mixed school in New York City. No differences were found between children in New York and children in the supposedly very different South from which samples were drawn. No differences were found between the samples from urban and rural Georgia.

Yet that the prejudices are derived from social sources rather than through biologically transmitted traits is rather clearly demonstrated by consideration of the results from the communist sample. Most of the white children in the various comparable samples showed a very marked preference for white as compared with Negro boys. The Negro lads tested showed a slight preference for whites, whereas the averages for the communist children hovered about the chance line. The unfavorably prejudiced attitude is attributed to environmental forces, not to specific experience with Negroes, but to such social forces as apply with about equal pressure to children North and South, to children with little contact with Negroes and to those with much contact, to children in prosperous urban Georgia and to children in impoverished rural Georgia—social forces which extend to the Negro community and develop even there a preference for white as compared with colored lads, social forces which do not, however, penetrate, or are negated by, the training given to the communist-trained children.

The attitude derived from diverse sources is expressed diversely. Apparently the prejudiced attitude is displayed toward any Negro identified as such, independent of specific details. Exceptions, of course, might be such identifications as would remove the individual from the general category of Negro to some specific other category, such as "Joe." The attitude expressed toward this diversity of stimuli is not expressed in specific activities alone. Children displayed prejudice in imagined activities in which they were too young to participate in reality. Rural children responded in fashion similar to their urban cousins in situations which could exist for them only in the realm of unreality. Among the youngest children, a general set to accept or reject is of importance even when comprehension of individual questions is lacking. Very young children, at the close of individual examinations, were not infrequently asked, as if a postscript to the Show Me test, to indicate those that "jabberwocky goldfish" and those youngsters that had been excluding the Negro boys from their selections would generally once again choose the whites.

In apparent contrast to this diffuse expression of prejudice independent of the specific activity, is the specificity of the responses dependent upon the general nature of the situation discussed in the preceding chapter when the difference between the tests was analyzed. Prejudice may be displayed diffusely through the different activities included in one type of situation and very specifically or perhaps not at all in another type of situation. In the course of time, as the increasing intercorrelations of the tests demonstrate, the expression of the attitude becomes more and more integrated internally, and, as may be generally observed, more and more integrated into the general community pattern of relations.

In summary, within the limitations imposed by the population sampled, attitudes toward Negroes are equally unfriendly among children of varied back-

grounds. The prejudice begins very early in the life span, develops gradually, is not innate but is formed by the continued impact of widespread social forces, is expressed diffusely, and in the early stages may appear as lacking the integration which it gradually achieves. The social forces may nevertheless be controlled and an impartial attitude developed.

Conclusion

Validity in tests of personality, the degree to which a measurement describes what it is supposed to describe, is frequently mentioned, occasionally discussed, and rarely demonstrated to be high. Yet once a standardized measure is found to have adequate reliability for discussion, the naming of the measure raises the question of validity. Judgments by experts directly on the material or submission to objective test on criteria satisfactory to experts is the customary procedure for demonstrating validity. Since it is essential that experts agree on what they designate by commonly used terms, this is a satisfactory arrangement. The problem of demonstrating validity statistically in a field in which there are no recognized experts is indeed a difficult one, especially when people who might be expected to render judgment based on accurate observation disagree on major points.

In justification of naming the test responses in the present study "measure of attitude toward Negroes," the original precautions in test construction may be referred to. In addition, some incidental comments by test subjects, unsystematically recorded during the administration of individual examinations, are presented:

Selma, aged four years, was tested informally with the Ranks test. The four white boys were ranked 1, 2, 3, 4. Selma then halted.

Examiner: "Now which one do you like best?"

Selma: "I don't like colored boys."

Examiner: "Which are the colored boys?"

And Selma unerringly indicated the eight faces she had systematically excluded in the Show Me test preceding.

A Southern seven-year-old, when asked to show "all those that you would go swimming with," hesitated, then spoke up: "Where I go swimming I don't think they allow colored people, . . . oh yes, they do, on Tuesdays and Thursdays, for about two hours in the afternoon. But supposing they *could* go with me, I'd want him and him and him."

Another Southerner, eight years old, at the beginning of the Ranks test, pointing to one of the Negro pictures, said, "I like that one best; he's just like our chauffeur's boy."

That the responses of children were realistic may be seen in such comments as:

(Show Me—go home for lunch) "None of them. My mother would like to have them come for lunch, but we don't have enough to eat for ourselves."

(Show Me—come to your party) "Come all the way to A——?"

(Show Me—live next door to you) "All of them. I'm the super's boy. . . . My father's the superintendent where we live."

(Show Me—live next door to you) "They can't. There is no room. There's just a lot on one side and somebody lives on the other."

(Show Me—captain of the ball team) "Can I pick more than one?"

(Social Situations test: school) "What're they doing? Arithmetic, no, I don't want to join in."

(Social Situations test: eating) "What's that? Roast beef? Yes, I want to join in."

Since in the original construction of the test only those pictures were used which were chosen by people of experience as "racially characteristic" and

ambiguous cases were discarded, and the scoring scheme was based entirely on the principle of comparative response to white and colored faces on scenes of all white or mixed groups, and since the children's comments were such as to indicate they were recognizing the racial aspect of the test and responding realistically, it is felt that the use of the term "measures of attitude toward Negroes" is justified; in other words, that the tests are valid.

Summary

1. An attempt was made to study the development of attitudes toward Negroes.

2. Three tests were developed which made possible objective recording of attitudes.

3. The tests were administered to boys from kindergarten through the eighth grade in various types of communities, a retest after six months being conducted in some samples in New York City.

4. An intensive statistical analysis was made of the data collected from New York City samples.

5. Analysis of the data for trends revealed that each test had a characteristic form of growth curve for the period investigated.

6. The tests, though each was considered valid, were demonstrated to differ significantly, from the point of view of growth, in the results yielded.

7. The intercorrelations among the tests increased with advance in age.

8. Boys were tested in urban Tennessee, urban Georgia and rural Georgia, and in comparing these groups with each other, no differences were discernible.

9. The Southern groups tested showed no more prejudice than that showed by the children in New York City.

10. A small group of white boys in a mixed school in New York City showed about as much prejudice as did the boys in the all-white schools.

11. The Negro boys in the mixed school gave evidence of having accepted, in part, the standards of the white (majority) group.

12. A small group of communist children tested in New York City showed no apparent prejudice against the Negro.

13. The results from the testing program are discussed with reference to the process of development of an attitude and with reference to attitudes toward Negroes.

Underneath the disguise of statistical manipulation, an effort has been made to present data of significance to students of interracial attitudes and to students of personality. Concerning none of the many issues dealt with has the present investigator felt the material presented is conclusive. The interpretations presented are but tentatively offered in the hope that they may not be entirely devoid of value.

In the course of this presentation, it has been found necessary to contradict many of the oft-repeated clichés current in the discussions of the race problem. Young children were found to be not devoid of prejudice; contact with a "nice" Negro is not a universal panacea; living as neighbors, going to a common school, were found to be insufficient; Northern children were found to differ very, very slightly from Southern children. It seems that attitudes toward Negroes are now chiefly determined not by contact with Negroes, but by contact with the prevalent attitude toward Negroes.

3.

FACTORS ASSOCIATED WITH ATTITUDES TOWARD JEWS

By Angus A. Campbell

"My own opinion is that the Jew is going to become a very serious problem with us in a few years. In fact they are already. I am not the only one thinking that. Many people I have talked with think that way. You hear it rumored that the Jews will get control here after the war just as they did in Germany after the first World War. I know they control a lot of things here already and some day things will come to a head. I have thought a lot about it and I don't know what can be done. We can't treat them differently under the law and so what are we going to do? I don't know what the end will be but I foresee that we are going to have serious trouble here."

How many Americans share the apprehension of this small businessman in eastern Pennsylvania? How widely has the democratic doctrine of equal rights "under the law" begun to be questioned? What factors in the personal situation of non-Jews give rise to aggressive attitudes toward Jews? What criticisms do non-Jews make of Jews?

In order to obtain information on these and other questions, a nation-wide sample survey was undertaken in September, 1942. Three hundred and sixteen white, non-Jewish Americans were interviewed in their homes by highly trained interviewers using the techniques of open interviewing. These 316 respondents were carefully selected by methods of random sampling so that, taken together, they would represent the white, non-Jewish, adult population. The sampling error of such a small sample is of course large and the percentages cited in this report should be regarded as only approximate.

Thirty-four additional interviews were obtained among former subscribers to certain dissident magazines whose circulation had been suppressed in the interest of national defense shortly before this study was undertaken. These respondents were selected at random from two metropolitan areas but their number is so small that they are not given detailed statistical consideration in this report.

I. The National Sample

How People Feel toward Jews. There are very great differences in the attitudes toward Jews expressed by non-Jewish Americans, ranging from apparent affection for the whole group to generalized, unvarnished hostility. This range of attitude can be divided rather naturally into five points on a scale. Descriptions of these categories and the distribution of the sample are given in Table 1.

When the 316 respondents are classified on this scale approximately one fifth fall into the two hostile categories (points

TABLE 1

Attitudes toward Jews

	Percent
1. Express liking for Jews as a group; pro-Jewish	11
2. Show no anti-Semitism; make no criticism of Jews or of "Jewish" characteristics	50
3. Express mild dislike of "Jewish" characteristics	21
4. Dislike Jews, tend to avoid close personal contact; against discrimination except for specified social restrictions	13
5. Show active hostility toward Jews; approve aggressive measures against Jews	5
	100

TABLE 2

Specific Criticisms Made of Jews	Percent[a]
In relation to the war effort: "They're not doing their share." "They're draft dodgers."	11
In relation to the political field: "The Jews caused the war; they got us into it." "The Jews are running Washington." "They are trying to take over the government."	5
In relation to the economic field: "The Jews are too wealthy." "They don't treat you fairly when you buy from them." "They all grab as much money as they can." "They don't treat their workers right." "The Jews are running Wall Street." "They're taking over business, pushing the Gentiles out."	30
In relation to personal characteristics: "They're dirty, pushy, greedy." "They stick together too much. You don't see them joining in our activities." "Their religion teaches them bad ways." "They think they're too superior."	30
No criticism made	55

[a] This table totals to more than 100 percent since some respondents made more than one type of criticism.

4 and 5 in Table 1). One fifth express mild dislike of Jews (point 3); more than half of the total group are either pro-Jewish or otherwise free of anti-Jewish feeling.

What Criticisms Are Made of Jews? While 55 percent of the respondents made no criticisms of Jews during the course of the interviews, the rest all made some derogatory comment, in most cases expressing it as their own belief, in a few cases as the belief of other people (Table 2). These criticisms covered a wide variety of traits. In some cases a characteristic which was vigorously criticized by one person was warmly approved by another. Certain specific complaints recurred frequently, however, and stand out as popular stereotypes of "Jewish traits."

The most commonly expressed criticism dwelt on supposedly unethical business practices of Jews; 30 percent of the sample criticized their economic behavior. The accusations included "money grabbing," bad treatment of employees, sharp practices, excessive economic control.

Numerous complaints were made about what were regarded as unpleasant personal traits of Jews. "Clannishness" was most commonly criticized, and "aggressiveness" frequently mentioned. Thirty percent of the respondents criticized some personal shortcoming.

Relatively few of those interviewed (5 percent) thought of the Jews as politically objectionable. Less than 3 percent spoke of Jewish control of the government; an even smaller number (1 percent) fixed responsibility for the war on the Jews. However, when those respondents who criticized Jews are classified as to the area of their major criticism (personal, economic, or political), it is seen that those individuals whose objections to Jews centered on the economic or political behavior of Jews tended more toward the more hostile forms of anti-Semitism than did those people who objected mainly to personal attributes.

Very few of the complaints against Jews placed any emphasis on the religious differences between Jews and non-Jews. When asked directly whether they thought religious differences between these two groups were important, 55 percent of the respondents replied with an unqualified denial. Only 7 percent thought these differences were the primary basis of feeling against the Jews. It is interesting that most of the explanations given by those respondents who felt religious differences were important had nothing to do with the historical belief that Christ was crucified by Jews. Only 8 percent of those who offered explanations (12 percent of the

TABLE 3

RELATIONSHIP BETWEEN EXTENT OF EDUCATION AND ATTITUDE TOWARD JEWS

Attitude	Grammar school or less, percent	High school, percent	College, percent
Express liking for Jews	8	11	17
Show no dislike of Jews	61 } 69	49 } 60	26 } 43
Express mild dislike	17	22	23
Dislike Jews, avoid them	7	12	31
Show active hostility	7 } 14	6 } 18	3 } 34
	100	100	100
Proportion of sample	44	44	12

sample) spoke of this as important. Much more important was the presumed effect of the Jewish religion in promoting clannishness and creating barriers between Jews and non-Jews.

A great many of the respondents were obviously very ignorant of everything pertaining to Jews. Detailed analysis of the interviews reveals many confused and vague generalities, identification of Jews as foreigners, distorted beliefs about the Jewish religion, and other misconceptions based less on malice than on simple lack of information.

Factors Accompanying Anti-Semitism. When the respondents are classified as to their attitudes toward Jews it becomes possible to isolate those factors which distinguish those who expressed dislike or hostility toward Jews from those who did not.

Age, Sex, Nativity, Religion, Education, Income. When attitudes toward Jews are compared with various social and economic characteristics of those interviewed, it is found that the relationships are for the most part slight, and in some cases negligible.

There is no consistent relationship between attitudes toward Jews and age or income. Men are slightly less often favorable in their attitudes toward Jews than are women. Those of foreign birth appear to be somewhat more favorable than those of native birth. Protestants and Catholics differ only slightly in their expressed anti-Semitism. There is a trend toward an increase in anti-Semitism with increasing education, the sharpest break coming between the high-school and college groups.

Economic and Political Dissatisfaction as Factors Accompanying Anti-Semitism. The psychological characteristics of those who appear anti-Semitic and those who do not seem to govern their attitudes toward Jews more closely than do their social and economic characteristics.

Each respondent in the sample was rated on the basis of his interview as to whether he appeared to be satisfied or dissatisfied with his own personal economic situation. He was also rated as to whether he seemed satisfied or dissatisfied with the national political situation.[1] Those persons classified as dissatisfied with their own economic situation expressed hostility toward Jews more frequently than those who were economically satisfied.

10 percent of those economically satisfied expressed hostility, but
38 percent of those economically dissatisfied expressed hostility.

[1] These two ratings were made independently of the rating of attitudes toward Jews, and without knowledge of the respondent's answers to the questions dealing with Jews.

TABLE 4

RELATIONSHIP BETWEEN ECONOMIC AND POLITICAL SATISFACTION AND PERCENTAGES EXPRESSING DIFFERENT ATTITUDES TOWARD JEWS

Attitude toward Jews	Economic and political satisfaction					
	Satisfied in both	Satisfied in one; intermediate in other	Intermediate in both	Satisfied in one; dissatisfied in other	Dissatisfied in one; intermediate in other	Dissatisfied in both
Express liking for Jews	12	12	9	20	2	8
Show no dislike of Jews	73	61	48	26	38	25
Express mild dislike	8	21	34	13	19	30
Dislike Jews, avoid them	7	5	6	32	25	13
Show active hostility	0	1	3	9	16	24
	100	100	100	100	100	100
Proportion of total sample	20	31	14	9	18	8

Correspondingly,

75 percent of those economically satisfied either expressed liking for Jews or gave no evidence of dislike, while only

39 percent of those economically dissatisfied either expressed liking for Jews or gave no evidence of dislike.

Those persons classified as dissatisfied with the contemporary political scene, like those economically dissatisfied, were also disproportionately inclined to express dislike or hostility toward Jews.

When the two ratings of satisfaction-dissatisfaction are combined, the correlation with attitudes toward Jews is most clearly seen (Table 4).

Personal Contact as a Factor in Anti-Semitism. Lack of contact with Jews is associated with a neutral attitude; liking is not often expressed by people having no contact with Jews, nor is dislike. Those lacking in contact with Jews are rated as showing no dislike of Jews in 87 percent of the cases. Reported contact accompanies anti-Semitic attitudes, although it likewise is sometimes associated with expressed liking for Jews. Those who report considerable contact often have Jews among their friends; as a group they are not more likely to express dislike of Jews than are those respondents with only occasional contact.

Anti-Jewish Indoctrination. Although they were not specifically pressed in the interview to recall having heard or read derogatory descriptions of Jewish behavior, one fifth of the respondents mentioned the fact that they had had such experiences. The influence of this propaganda is difficult to estimate since very little information was obtained regarding its extent or character, and there is no way to isolate the effect of specific indoctrination from the generalized influence of popular folklore.

The fact that exposure to anti-Jewish indoctrination was mentioned more commonly by respondents hostile toward Jews (37 percent) than by those showing no dislike of Jews (10 percent) cannot be accepted as clear evidence of its influence. Even if the factors of dissatisfaction and personal contact were held constant the effect of indoctrination would still not be clear since references to rumors and other

TABLE 5

RELATIONSHIP BETWEEN EXTENT OF CONTACT WITH JEWS AND PERCENTAGES EXPRESSING DIFFERENT ATTITUDES TOWARD JEWS

Attitude toward Jews	Extent of contact		
	None	Occasional	Considerable
Express liking for Jews	0	9	21
Show no dislike of Jews	87	45	40
Express mild dislike	7	24	21
Dislike Jews; avoid them	3	13	16
Show active hostility	3	9	2
	100	100	100
Proportion of total sample	19	54	27

persons' opinions often appeared to serve as rationalizations of the respondent's own attitude, especially when the respondent had not himself had unpleasant experiences with Jews.

Political and Religious Principles as Related to Attitudes toward Jews. A majority of the respondents (76 percent) expressed at some point in their interviews a statement of belief in the doctrine of equal human rights. Most of these statements were of a general political-ethical character—"Everybody has equal rights in this country." A much smaller number were based on religious beliefs—"God made us all equal."

Many of these affirmations of equalitarian credo appeared to be shallow repetitions of familiar stereotypes; others were considered statements of deeply felt political or religious principles. Many inconsistencies between theory and approved action were apparent; equalitarian theory frequently came into conflict with approved discriminatory action. Forty-four percent of the respondents contradicted themselves in this way during the course of their remarks.

The respondents were frequently uncomfortable about expressing themselves on the subject of Jews. This was especially true of those whose attitudes toward Jews were antagonistic. As a group, the respondents obviously did not regard the more extreme forms of anti-Semitism as socially approved.

II. THE THIRTY-FOUR SUBSCRIBERS

The 34 people who had recently been subscribers to certain suppressed magazines constitute a very different group from the 316 individuals making up the national sample described in the preceding pages. While it cannot be safely assumed that they represent accurately all subscribers to these magazines, the distinctive pattern of attitudes which they show strongly suggests that the universe from which they were drawn differs from the general adult population.

A Pattern of Discontent. A large proportion of the 34 subscribers demonstrated a consistently negative attitude toward the social and political issues raised during the interview. When they are arranged on the basis of the number of favorable and unfavorable attitudes they express, the pattern of their grievances becomes clear (Table 6).

A large majority of the 34 subscribers expressed unfriendly attitudes toward Jews during the course of the interviews. Over half of them fell into the two hostile categories of the scale used in the present study. These people were especially prone to comment enviously on the

TABLE 6

ATTITUDE PATTERNS OF 34 SUBSCRIBERS TO DISSIDENT MAGAZINES

Respondent	Attitude toward Jews	Attitude toward support of the war	Attitude toward federal administration	Economic satisfaction
1	+	+	+	+
2	+	±	+	+
3	+	+	+	±
4	+	+	+	−
5	+	±	±	+
6	+	±	+	±
7	+	±	−	−
8	±	+	±	−
9	±	+	−	±
10	±	±	+	−
11	±	±	−	±
12	±	±	−	−
13	±	±	−	−
14	±	−	−	−
15	−	+	±	+
16	−	+	±	−
17	−	±	±	±
18	−	±	±	±
19	−	±	±	−
20	−	−	±	±
21	−	±	−	−
22	−	±	−	−
23	−	±	−	−
24	−	−	−	±
25	−	−	±	−
26	−	−	±	−
27	−	−	−	−
28	−	−	−	−
29	−	−	−	−
30	−	−	−	−
31	−	−	−	−
32	−	−	−	−
33	−	−	−	−
34	−	−	−	−

+ = Favorable
± = Favorable in some respects, unfavorable in others
− = Unfavorable

privileged economic position which they felt Jews held in comparison to non-Jews.

It is noteworthy that this high incidence of hostility toward Jews did not seem to derive primarily from unpleasant personal contact with Jewish people. When the amount and character of contact with Jews reported by this small group are compared to that of the national sample no significant difference appears.

A third of the 34 subscribers declared themselves out of sympathy with the war even though this country had been an active belligerent for almost a year at the time of the study. Criticism of the federal administration was also very common among this group. Of the 34 respondents 18 disapproved of the activities of the Administration; only six seemed favorably disposed. Over half of the subscriber group indicated in their interviews discontent with their personal economic situation.

It is apparent from Table 6 that the prevailing tone among the attitudes of these 34 people is a negative one. They tend to combine various dissatisfactions into a generalized grievance, including anti-Semitism, opposition to the war, lack of sympathy for the Federal administration, and dissatisfaction over personal economic matters. There are a few who do not conform to this pattern, but within the group generally there is a strong spirit of discontent.

The editorial bias of the magazines to which these people had been subscribing was a complex of negatives: antiwar, anti-administration, and anti-Semitism. Its readers were exposed to an integrated program of dissident indoctrination. Although the attitudes shown by the 34 people whose views are reported here suggest that this indoctrination was in large part successful, it is entirely possible that these attitudes were held by these people before they became subscribers, that they in fact subscribed because the magazines presented points of view of which they approved. It seems probable that many of these people had grievances of their own, independent of what they read in these magazines; the magazines may have served to elaborate and integrate these grievances into a general pattern of discontent.

III. An Interview

The transcript of an interview which follows is presented with two purposes in view, first, to provide an example of the type of interview material on which this report is based, and, second, to illustrate the generalization of dissatisfaction which was common among the 34 subscribers to dissident magazines. The respondent was a mailman, unmarried, 32 years old, a college graduate, and facing the imminent prospect of being drafted.

Q. You know that the government is trying to control prices? How do you feel that's working out here in Brooklyn?

A. It's not working at all. There may be ceilings on prices but what is there to keep them from deflating goods? They are already making candy bars smaller but they still sell for 5 cents. Slaughtering those pigs a few years ago wasn't very foresighted. All this talk about preventing inflation makes me tired. Why do they keep on paying outrageous wages to workers in the Navy Yard while at the same time they are asking people to buy bonds . . . and all this talk about raising taxes. In Britain they pay a straight hourly rate, but here we pay double time for holidays and Sunday. The President's action in stopping that was good, but he hasn't gone far enough.

Q. Do you think some people are raising rents and prices above what should be?

A. You can't raise rent. The taxpayers are paying for LaGuardia's Ft. Green Housing Project—but who is going to live in it? Not the "Niggers" from the slums of Harlem, but most likely these $125-a-week shipyard workers. The civic government is competing with private property owners. We can't offer our tenants as much for $42 a month as they can get at Ft. Green.

Q. Do you think the government is doing a good job or a bad job these days?

A. It hasn't even started yet. I don't think the President should have come out saying what he was going to do if Congress didn't. That's no democracy, but a dictatorship. A lot of people are criticizing his speech. What do you mean by government—one man or Congress, the elective government?

Q. Some people say that the government ought to have more control over business after the war than it used to have. How do you feel about that?

A. I'm not in favor of the President having any more power, but I would be in favor of more control in the hands of Congress, the elected representatives of the people. How do we know the next President won't be a communist? Too much control shouldn't be in the hands of one man. There are a lot of fools in Congress, but the people elected them. First thing we know we'll have the same situation as Germany. There they had an artificial republic and along came Hitler and pretty soon the people had no word in the government.

Q. How would you feel about more government control over labor?

A. I'd favor having a government body composed of representatives of the different unions that would have jurisdiction over all union affairs. Only in that respect would I favor more government control.

Q. Do you think there will be any difference in the way the government itself is run after the war?

A. If the people hold on to their sanity there won't be any change in our form of government. If we throw out our constitution we're ruined.

Q. Do you think there *should* be important changes in the way the government is run? What sort of changes?

A. If you mean a new administration—yes, I'd vote for a new administration tomorrow. I'm not in favor of the way the war is being run. You can't face two enemies at once. War was not inevitable, we could have postponed it. We set ourselves up as the tenants of the Western Hemisphere, but we try to tell Japan how to behave in Asia. Didn't Britain use force in South Africa, Ireland, India—is something a crime today that wasn't a crime in 1846?

Q. Do you think there will be any changes in the way workers and business get along after the war?

A. Both will have more patches on their pants. Misery loves company . . . so they ought to get on better. But where's the money coming from to finance this war if the earning power of the nation is taken into the Army?

Q. How do you think the war is going now?

A. The United States is going to win, but by the time we win we'll be hanging on the ropes.

Q. How long do you think the war will last?

A. Ten years. Remember the hundred year war?

Q. Do you feel it is better or worse than a few months ago?

A. Hard to tell. What have we done? We've taken some small islands in the Solomons but we're on the verge of losing New Guinea. I can't see that we've made any headway.

Q. Do you think we should be sending our soldiers out of the country?

A. No. I don't think so. Germany is not our natural enemy and never was. Of course the system of government in Germany is everybody's enemy, but so is Communist Russia. England lives off of what she steals from her colonies—she leaves millions in India starving. We're mingling with a bunch of thieves. I'm telling you it's a serious thing when you're called on to give up your life for something you don't believe in. That's the way a lot of fellows feel. They don't want to fight because they have no confidence in the leadership of this country and what we are fighting for.

Personally I think more of France than all of our allies. Didn't we practically get our form of government from them? Now we think Finland is no good though for a while back we were lauding them. Joe Stalin is a big man today. I think even less of Churchill. He is repeating the same blunders he was guilty of in the last war. Didn't he take advantage of the drop in the stock market as a result of reported British losses to buy up a lot of stocks and bonds before he released the news that the British had actually won? That's a matter of record in any first-class library.

Q. Do you think there are any people in the country who aren't doing their share in the war effort?

A. They can't avoid it when their backs are to the wall. What else can they do except fight or go to jail? The President has been crying for unity, yet he caused

plenty of disunity in this state by going against his party's choice for governor. Where is the unity in that sort of thing?

Q. How about the colored people? Do you think they feel the same way about the war as we do?

A. I don't know any. There aren't any around here.

Q. Do you think the Jewish people are doing their share? How do you mean?

A. They're trying to get out of it, but so are all of us. They're richer than the rest of us and probably succeed a little better—and they have less principle and easier conscience. What great art has the Jew given the world except that of making money? I'm not anti-Jewish—I can't be because I'm Roman Catholic. They're hated by all alike—must be something wrong with them. There's something the matter with them when they are driven out of every country in the world.

Q. Do you think that in general there is any feeling against the Jews here in Brooklyn, apart from the war?

A. Sure, people just don't like them.

Q. Why do you think people feel that way?

A. If I could answer that I would become a great man. A lot of it's just instinct—like a dog that whirls around three times before he lies down. He had to do it in the brush to mash down a bed for himself, but he still does it in the city—just instinct. We dislike Jews because that's the way we grow up to feel toward them.

Q. Do you have much contact with Jewish people from day to day?

A. I work with a few and they're regular fellows—they never make themselves superior and never sneer—but others are not like that. Most of them think they have superior intellects. How come 90 percent of the communist parades are made up of Jews?

Q. Now we've been talking about how other people feel; how do you yourself feel about the Jews?

A. Oh, I think they are clannish and very shrewd. I wouldn't say always dishonest, but plenty scheming. They never become assimilated—never become a part of a country they live in. From an artistic standpoint they have lowered the standard of the drama since they got control of the theater business—no more Henry Gibsons. I'm modern, but I don't even want to take my girl to a lot of the plays—but the Jews love it.

Q. Do you think Jews should be treated differently from other people? How so? Why?

A. No, but they should be made to act as other people. Why should I be browbeaten by a guy holding Stalin's picture? Who's ruling this country—the Reds? I've never been able to understand why Jews want to force their way into restricted places anyway. I sure wouldn't want to go where I'm not wanted.

Q. When did you begin to feel about the Jews the way you do now?

A. I've always felt the same way. We used to do home work together in school sometimes, but I've never liked to be around them.

Q. What things made you feel the way you do now about the Jewish people?

A. Just instinct.

Q. What do you think the Jews in this country could do to make people more friendly toward them?

A. Wash more frequently. Have better manners in the subway . . . not run like cattle to an empty seat. Shouldn't think Jews are always right.

Q. Do you think the fact that they have a different religion than we do is important?

A. Nothing to do with it. Fundamentally their religion is the same as my religion. The only difference is in interpretation. Both religions have Ten Commandments. My religion is not responsible for what I think about Jews. Why do Jews become so belligerent over any criticism of communism? Nuns and priests were murdered in Spain by the Loyalists, but who went through the subways collecting for communists—not the Catholics.

Q. Do you think there are some races of people that are better than others?

A. No. One is as good and as bad as another. They are different, temperamentally, according to climates, but one is not better than another. There is no pure race. All races mingled in the United States and nothing's wrong with the United States except our leaders. There's been no true statesman in the United States since Teddy Roosevelt.

Q. What do you think about the way the Jews were treated in Germany?
A. Absolutely wrong. Even if they brought it on themselves, that is no excuse for the way they have been treated—it is not right.

SUMMARY

Two fifths of the national sample interviewed in this study were willing to make some unfavorable comment regarding Jews. They objected most often to presumed unethical business practices of Jews. Relatively few thought the Jews were running the government and even fewer spoke of the war as a "Jewish war."

Correlations of attitudes toward Jews with socio-economic factors are in most cases low, although unfriendliness toward Jews seems to be significantly associated with extent of education. Dissatisfaction with personal economic circumstances is found to be highly correlated with hostility toward Jews and a comparable correlation is obtained with ratings of political dissatisfaction.

People who had had no contact with Jews seldom expressed hostility toward them. People who had had considerable contact were, as a group, no more apt to indicate dislike of Jews than people who had had only occasional contact.

Expressions of hostility toward Jews were usually accompanied by reservations and often conflicted with statements of belief in equalitarian rights. The extreme forms of anti-Semitism were not regarded as socially approved, even by the small minority who expressed extreme attitudes.

Among a small group of 34 respondents who had been subscribers to certain magazines which were suppressed during the first year of the war unfriendliness toward Jews was very common and in most cases was accompanied by other evidences of dissatisfaction and hostility.

4.

TOLERANCE AND PERSONALITY TRAITS

By Eugene L. Hartley and Ruth E. Hartley

In a sample of thirty-four cases from the Arts School of the City College of New York, from whom personality sketches had been obtained as described elsewhere, the five most tolerant and five most intolerant individuals were selected on the basis of their responses on the social distance test of attitude. The ten personality studies of these individuals served as the bases for another series of studies. Their expressed tolerance for nations and races on the social distance scale was not indicated in any way on the case description, random identification numbers were the only means of designating the individuals. These papers were analyzed by a clinical psychologist who was given to understand that they represented a random selection of ten sketches from the sample of C.C.N.Y., Arts School, and that the analysis she was being asked to make was preliminary to another series of studies, the purpose of which she did not know.

After the ten cases had been carefully read, analyses were made of each of the individuals in terms of whatever seemed of greatest significance in the light of each personality rather than of any predetermined schedule. After the first

From E. L. Hartley, *Problems in Prejudice* (New York: King's Crown Press, 1946). Reprinted by permission of the authors and the publisher.

TABLE 1

ANALYSIS OF CHANCE DISTRIBUTIONS OF COMBINATIONS OF TEN PAPERS SORTED INTO TWO GROUPS OF FIVE EACH IN TERMS OF FREQUENCY OF COMBINATIONS THAT MIGHT BE EXPECTED TO CONTAIN DIFFERENT NUMBERS OF PAPERS FROM ONE OF THE ORIGINAL DICHOTOMIES (e.g., THE "HIGH" TOLERANCE GROUP)

Number from the original category in the combination	Frequency of occurrence by chance
5A	1
4A (−1B)	25
3A (−2B)	100
2A (−3B)	100
1A (−4B)	25
0A (−5B)	1
	252

analysis of each case, summaries were written. She was then asked to divide the ten individuals, based upon her personality and characterological summaries, into dichotomies, into two classes of five each on any systematic basis she could. As many dichotomies could be undertaken as seemed reasonable in the light of the personality summaries which had been prepared. The emphasis was on finding bases for classifying the personalities into dichotomies. Finally, the clinician was told of the way in which the cases had been selected, and was asked to sort them into high and low tolerance categories based on a general estimate.

STATISTICAL CONSIDERATIONS

In our analysis of the sortings made on the basis of personality, we shall attempt to analyze the correspondence between the dichotomy with respect to personality variables, and the dichotomy with respect to tolerance on the social distance test. In sorting ten papers into two groups of five each, it is possible to make a total of 252 different arrangements (number of combinations of ten items taken in groups of five). Using formulae for computing the number of combinations that can be made in selecting differently constituted groups of five from a sample of ten, we can estimate the probabilities associated with any particular relationship which may be observed. Thus selection on a chance basis would result in putting five of category A in class C and five of category B in class D, once in 252 times. The probability of getting five of category A in either class C or D (and necessarily the five of category B in D or C), would be two in 252, $p = .00794$. Concerning the probability of getting four from one of the original categories in any one of the new dichotomies the following line of reasoning would apply: There are five different ways of getting combinations of four items from a sample of five units. Thus, we might expect, among the 252 possible combinations, five different ones which would include some groupings of four from class A. Associated with each of these five different ways of getting four there might be any one of the five items from class B. This represents a total of twenty-five different combinations in 252 in which any four members of class A could be expected to occur in class C. To estimate the probability of finding four from class A in either C or D, we multiply this by two so that we might expect to find groupings of four from one of the original categories in some one of the new

dichotomies by chance alone fifty times in 252 sortings or an equivalent of p = .198. Table 1 gives the fuller statement of the number of times we might expect to get different numbers of units from, let us say, class A of an original dichotomy in class C of a second sorting.

The Correspondence in the Sortings

The very last personality sortings made in the series undertaken is worth mentioning first. This was an attempt to estimate general tolerance, first from the personality summaries, and then from the fuller case descriptions. Since the analyses were in terms of definitely labeled C and D categories, the single expression rather than the doubling would more correctly express the theoretical chance possibilities in the correspondence with the original dichotomy. Both sortings proved identical, although they were independently done and there was no conscious memory during the second of the results of the first. The results showed that four of the five were correctly placed in each of the two dichotomies. Only one pair of individuals was misplaced, and these same two were misplaced both times. The possibility of getting this result or better by chance is 26/252 (see Table 1). This seems to confirm the conclusion suggested earlier that tolerance can be estimated from the total personality picture of the individual. It is interesting to note that the pair of case histories which were confused in their placement were the only two in the ten where the students had not followed the outline as it was offered. In length, these two were only six pages each (standard double-space typewritten pages directly comparable to all the others), while the other outlines, when typed up, were respectively 10, 11, 12, 12, 13, 15, 22, and 40 pages long.

The analyses of the case outlines in this study were undertaken chiefly in accordance with the outline of personality suggested by Murray.[1]

As described above, without reference to the factor of tolerance, a number of variables were selected as criteria for dividing the cases into two groups. Of those selected, later analysis revealed that the following variables did not seem related to tolerance. These variables, when the cases were sorted, included within each unit of the dichotomy on personality characteristics, combinations of three and two from the two groups divided on tolerance: inferiority feelings, feelings of having been cheated, repressed aggression, superego conflict, projectivity, and integration of ego ideal.

Two classification schemes coincided with the original dichotomy to the extent of having within each of the new categories four of the five in the tolerance dichotomies. These two classification schemes were based on (1) the quality of the need for achievement and (2) a combination of *intraception* (interest in imaginative activities) and *endocathection* (preoccupation with inner processes). Our discussion of methodology in this sorting suggests that this degree of correspondence might be expected fifty-two times in 252 sortings on a chance basis. The relationship is therefore not such as to preclude an explanation on the basis of chance. However, it seems sufficiently interesting to make it worth while accepting the existence of the relationships as tentative hypotheses pending further research.

The hypothesis suggests that the tolerant individuals have high need for achievement. They seem to have a strong need

> to accomplish something difficult. To master, manipulate or organize physical objects, human beings, or ideas. To do this as

[1] H. A. Murray and others, *Explorations in Personality; a Clinical and Experimental Study of Fifty Men of College Age* (New York: Oxford University Press, 1938).

rapidly, and as independently as possible. To overcome obstacles and attain a high standard. To excel one's self. To rival and surpass others. To increase self-regard by the successful exercise of talent.

To make intense, prolonged and repeated efforts to accomplish something difficult. To work with singleness of purpose towards a high and distant goal. To have the determination to win. To try to do everything well. To be stimulated to excel by the presence of others, to enjoy competition. To exert will power; to overcome boredom and fatigue.[2]

For the intolerant group we find this characteristic rather low.

There seems to be a tendency for the individuals at the tolerant extreme to be interested in imaginative activity and preoccupied with inner processes. These individuals tend to have "an imaginative, subjective human outlook,"[3] —"a preoccupation with inner activities: feelings, fantasies, generalizations, theoretical reflections, artistic conceptions, religious studies."[4] The intolerant people have an "occupation with outer events"[5] —with an "enjoyment of clearly observable results. A tangible mechanical outlook."[6] These two empirical findings warrant further test before they can be accepted for generalization; particular effort should be made to test other types of samples.

For further orientation, after the clinical psychologist had made all of the individual personality and character sketches for the ten individuals and all (and more than all) the categorizations which she felt were warranted, the true position in the tolerance dichotomy of each of the cases was designated. The task was then to attempt to formulate some general characteristics of the tolerant and intolerant personalities. Here we would expect to find the intrusion of possible halo factors in the summaries by the clinician. These summaries are not to be taken as final objective analyses, but rather as cues for further work. The analyses, however, have some merit, since all of the individual outlines had been interpreted and summarized before the observer was notified of the tolerance aspect of the cases and consequently the halo error may be presumed to have been reduced to a minimum though projection of the theoretical biases of the observer may have influenced the results.

The *relatively tolerant personality* in this type of collegiate sample is likely to exhibit some combination of the following characteristics: a strong desire for personal autonomy associated with a lack of need for dominance, a strong need for friendliness, along with a personal seclusiveness, fear of competition, a tendency to placate others along with lack of general conformity to the mores. He is likely to be fairly serious, to be interested in current events, to have ideas about bettering society, to be a member of a political group and to have great need for personal achievement in the vocational area. He is likely to be an accepting personality, disliking violence, able to appreciate the contributions of others, conscious of feeling that people tend to be more or less alike and adopting a nurturant rather than a dominant attitude toward those younger than he. He is conscious of conflicts concerning loyalties and duties, and thinks very seriously about moral questions. His interests center about what are commonly called the social studies, reading and journalism. Although personally seclusive, he has a great need to be socially useful.

The *relatively intolerant personality* might be expected to combine in varying degrees the following characteristics: unwillingness to accept responsibility, acceptance of conventional mores, a rejection of "serious" groups, rejection of political interests and desire for groups formed for purely social purposes, absorption with pleasure activities, a conscious conflict between play and

[2] Murray, *op. cit.*, p. 164.
[3] *Ibid.*, p. 747.
[4] *Ibid.*, p. 745.
[5] *Ibid.*, p. 746.
[6] *Ibid.*, p. 746.

work, emotionality rather than rationality, extreme egocentrism, interest in physical activity, the body, health. He is likely to dislike agitators, radicals, pessimists. He is relatively uncreative, apparently unable to deal with anxieties except by fleeing from them. Often his physical activity has in it a compulsive component; it may be that this compulsion to be on the move, that is, constantly occupied with sports, motoring, traveling, etc., serves for him the same function that study and activities with social significance serve in the case of the individual with high tolerance. Both the tolerant and intolerant individuals have anxieties, but there seems to be a distinct difference in the way in which they work them out.

Such characteristics as projectivity, distrust of people, feelings of inferiority, feelings of not belonging, and personal seclusiveness seem to break across these tolerance categories. Two tolerant individuals who seemed to share a good many characteristics with the intolerant group had what was apparently a firmly crystallized code which did not permit of inequality in tolerance of groups, although one of these was freely rejective of peers, parents, and other individuals on an individual basis. While it is true that such a code also appears in the case of one individual correctly judged to have low tolerance, it is so overshadowed by superficiality, banality, obvious need for dominance, emotionality, insincerity, unwillingness to accept responsibility, and need for conformity that it seems to exert no real influence. What one might call infantilism is especially marked in the intolerant group. One individual, who from a superficial examination does not otherwise seem to belong with this group, depends on clichés for his value organization of life; that is, he accepts morals pointed in plays and books at their face value with apparently little understanding of a realistic sort. This was one of the individuals incorrectly placed at first, before the significance of such dependence was fully recognized.

The above suggestions by no means represent conclusive reports of the differentiation between tolerant and intolerant personalities. They are offered solely as hypotheses based upon the studies conducted. It must be emphasized again that the particular sample analyzed represented extremes from a group of students who were originally selected for very high intelligence for admission to college, and represent a group which in comparison with other schools studied is very tolerant. It must be remembered also that many of these students are themselves members of discriminated-against minorities.

5.

THE ANTIDEMOCRATIC PERSONALITY

By Else Frenkel-Brunswik, Daniel J. Levinson, and R. Nevitt Sanford

Introduction

The present research was guided by the conception of an individual whose thoughts about man and society form a pattern which is properly described as antidemocratic and which springs from his deepest emotional tendencies. Can it be shown that such a person really exists? If so, what precisely is he like? What goes to make up antidemocratic thought? What are the organizing forces within the person? If such a person exists, how commonly does he exist in

This paper is a report of research carried out jointly by the University of California Public Opinion Study and the Institute of Social Research, with the sponsorship of the Research Department of the American Jewish Committee. This research will be more fully reported in a forthcoming volume by T. W. Adorno, E. Frenkel-Brunswik, D. J. Levinson, and R. N. Sanford.

our society? And what have been the determinants and what the cause of his development?

Although the antidemocratic individual may be thought of as a totality, it is nevertheless possible to distinguish and to study separately (*a*) his ideology and (*b*) his underlying personality needs. Ideology refers to an organization of opinions, attitudes, and values. One may speak of an individual's total ideology or of his ideology with respect to different areas of social life: politics, economics, religion, minority groups, and so forth. Ideologies have an existence independent of any single individual, those existing at a particular time being results both of historical processes and of contemporary social events. These ideologies, or the more particular ideas within them, have for different individuals different degrees of appeal, a matter that depends upon the individual's needs and the degree to which these needs are being satisfied or frustrated. The pattern of ideas that the individual takes over and makes his own will in each case be found to have a function within his over-all adjustment.

Although ideological trends are usually expressed more or less openly in words, it is important to note that, in the case of such affect-laden questions as those concerning minority groups, the degree of openness with which a person speaks will depend upon his situation. At the present time, when antidemocratic sentiments are officially frowned upon in this country, one should expect an individual to express them openly only in a guarded way or to a limited extent. This most superficial level of expression would afford a poor basis for estimating the potential for fascism in America. We should know, in addition, what the individual will say when he feels safe from criticism, what he thinks but will not say at all, what he thinks but will not admit to himself, and what he will be disposed to think when this or that appeal is made to him. In short, it is necessary to know the individual's *readiness* for antidemocratic thought and action, what it is that he will express when conditions change in such a way as to remove his inhibitions. Antidemocratic propaganda, though it makes some appeal to people's real interests, addresses itself in the main to emotional needs and irrational impulses, and its effectiveness will depend upon the susceptibility existing in the great mass of people.

To know that antidemocratic trends reside in the personality structure is to raise the further question of how this structure develops. According to the present theory, the major influences upon personality development arise in the course of child training as carried forward in a setting of family life. The determinants of personality, in other words, are mainly social; such factors as the economic situation of the parents, their social, ethnic, and religious group memberships, and the prevailing ideology concerning child training might be factors of crucial significance. This means that broad changes in social conditions and institutions will have a direct bearing upon the kinds of personalities that develop within a society. It does not mean, however, that such social changes would appreciably alter the personality structures that already exist.

It was necessary to devise techniques for surveying surface expression, for revealing ideological trends that were more or less inhibited, and for bringing to light unconscious personality forces.[1] Since the major concern was with *patterns* of dynamically related factors, it seemed that the proper approach was through intensive individual studies. In order to

[1] E. Frenkel-Brunswik and R. N. Sanford, "Some Personality Correlates of Antisemitism," *J. Psychol.*, 1945, XX, 271–291; D. J. Levinson and R. N. Sanford, "A Scale for the Measurement of Antisemitism," *ibid.*, 1944, XVII, 339–370.

gauge the significance and practical importance of such studies, however, it was necessary to study groups as well as individuals and to find ways and means for integrating the two approaches.

Individuals were studied by means of (*a*) intensive clinical interviews and (*b*) a modified Thematic Apperception Test; groups were studied by means of questionnaires. It was not hoped that the clinical studies would be as complete or profound as some which have already been performed, primarily by psychoanalysts, nor that the questionnaires would be more accurate than any now employed by social psychologists. It was hoped, however—indeed it was necessary to our purpose—that the clinical material could be conceptualized in such a way as to permit its being quantified and carried over into group studies, and that the questionnaires could be brought to bear upon areas of response ordinarily left to clinical study. The attempt was made, in other words, to bring methods of traditional social psychology into the service of theories and concepts from the newer dynamic theory of personality, and in so doing to make "depth psychological" phenomena more amenable to mass-statistical treatment, and to make quantitative surveys of attitudes and opinions more meaningful psychologically.

In order to study antidemocratic individuals, it was necessary first to identify them. Hence a start was made by constructing a questionnaire and having it filled out anonymously by a large group of people. This questionnaire contained, in addition to numerous questions of fact about the subject's past and present life, and a number of open-answer ("projective") questions, several opinion-attitude scales containing a variety of antidemocratic (anti-Semitic, ethnocentric, reactionary, profascist) statements with which the subjects were invited to agree or disagree. A number of individuals (identified by indirect means) who showed the greatest amount of agreement with these statements were then studied by means of clinical techniques, and contrasted with a number of individuals showing strong disagreement. On the basis of these individual studies, the questionnaire was revised, and the whole procedure repeated. The study began with college students as subjects, and then was expanded to include a variety of groups from the community at large. The findings are considered to hold fairly well for non-Jewish, white, native-born, middle-class Americans.

The Study of Ideology

Anti-Semitism was the first ideological area studied. Anti-Semitic ideology is regarded as a broad system of ideas including: *negative opinions* regarding Jews (e.g., that they are unscrupulous, dirty, clannish, power-seeking); *hostile attitudes* toward them (e.g., that they should be excluded, restricted, suppressed); and *moral values* which permeate the opinions and justify the attitudes.

In what senses, if any, can anti-Semitic ideology be considered irrational? What are the main attitudes in anti-Semitism—segregation, suppression, exclusion—for the solution of "the Jewish problem"? Do people with negative opinions generally have hostile attitudes as well? Do individuals have a general readiness to accept or oppose a broad pattern of anti-Semitic opinions and attitudes?

These questions led to and guided the construction of an opinion-attitude scale for the measurement of anti-Semitic ideology. This scale provided a basis for the selection of criterion groups of extreme high and low scorers, who could then be subjected to intensive clinical study. The source material for the scale included: the writings of virulent anti-Semites; technical, literary, and reportorial writings on anti-Semitism and fascism; and, most important, everyday American anti-Semitism as revealed in parlor discussion, in the discriminatory

practices of many businesses and institutions, and in the literature of various Jewish "defense" groups trying vainly to counter numerous anti-Semitic accusations by means of rational argument. In an attempt to include as much as possible of this type of content in the scale, certain rules were followed in its construction.

Each item should be maximally rich in ideas, with a minimum of duplication in wording or essential content. In order to reflect the forms of anti-Semitism prevalent in America today, the statements should not be violently and openly antidemocratic; rather, they should be pseudodemocratic, in the sense that active hostility toward a group is somewhat tempered and disguised by means of a compromise with democratic ideals. Each statement should have a familiar ring, should sound as it had been heard many times in everyday discussions and intensive interviews.

The 52-item scale contained five subscales—not statistically pure dimensions but convenient and meaningful groupings of items—the correlations among which should provide partial answers to some of the questions raised above. (*a*) Subscale "Offensive" (12 items) deals with imagery (opinions) of Jews as personally unpleasant and disturbing. Stereotypy is most explicit in the item: "There may be a few exceptions, but in general Jews are pretty much alike." To agree with this statement is to have an image of "the Jew" as a stereotyped model of the entire group. (*b*) Subscale "Threatening" (10 items) describes the Jews as a dangerous, dominating group. In various items the Jews are regarded as rich and powerful, poor and dirty, unscrupulous, revolutionary, and so on. (*c*) Subscale "Attitudes" (16 items) refers to programs of action. The specific hostile attitudes vary in degree from simple avoidance to suppression and attack, with intermediate actions of exclusion, segregation, and suppression. The social areas of discrimination covered include employment, residence, professions, marriage, and so on. (*d*) and (*e*) Subscales "Seclusive" and "Intrusive" deal with opposing stands on the issue of assimilation. The "Seclusive" subscale accuses the Jews of being too foreign and clannish; it implies that Jews can themselves eliminate anti-Semitism (a problem of their own making, so to speak) by greater assimilation and conformity to American ways. The "Intrusive" subscale, on the other hand, accuses the Jews of overassimilation, hiding of Jewishness, prying, seeking power and prestige. These items imply that Jews ought to keep more to themselves and to develop a culture, preferably even a nation of their own.

The total scale is intended to measure the individual's readiness to support or oppose anti-Semitic ideology as a whole. This ideology is conceived as involving stereotyped negative opinions describing Jews as threatening, immoral, and categorically different from non-Jews, and of hostile attitudes urging various forms of restriction. Anti-Semitism is conceived, then, not as a specific attitude (jealousy, blind hate, religious disapproval, or whatever) but rather as a general way of thinking and feeling about Jews and Jewish-Gentile relations.

For two groups, the reliabilities were at least .92 for the total A–S scale, and between .84 and .94 for all subscales ("Intrusive," second group only), except for "Seclusive," for which .71 was obtained (second group only). The correlations among the subscales "Offensive," "Threatening," and "Attitudes" are .83 to .85, while each of these correlates .92 to .94 with the total scale.

These correlations seem to reveal that each person has a rather general tendency to accept or reject anti-Semitic ideology as a whole. The correlations of subscale "Seclusive" with "Intrusive" (.74) and with "Attitudes" (also .74) reveal basic contradictions in anti-Semitic ideology.

(All the raw coefficients, if corrected for attenuation, would be over .90.) Most anti-Semites are, apparently, willing to criticize both Jewish assimilation and Jewish seclusion. This is further testimony to the irrationality of anti-Semitism. Also irrational is the stereotyped image of "the Jew" (the item about Jews being all alike was very discriminating), an image which is intrinsically self-contradictory, since one person cannot be simultaneously rich and poor, dirty and luxurious, capitalistic and radical.

The question then presents itself: Are the trends found in anti-Semitic ideology—its generality, stereotyped imagery, destructive irrationality, sense of threat, concern with power and immorality, and so on—also expressed in the individual's social thinking about group relations generally? Can it be that what was found in anti-Semitism is not specific to prejudice against Jews but rather is present in prejudice against all groups?

Considerations such as these led to the study of ethnocentrism, that is, ideology regarding in-groups (with which the individual identifies himself), out-groups (which are "different" and somehow antithetical to the in-group), and their interaction. A 34-item Ethnocentrism scale was constructed along lines similar to those employed for the A–S scale. There were three subscales: (*a*) A 12-item subscale deals with Negroes and Negro-white relations. The items refer to Negroes as lazy, good-natured, and ignorant; also aggressive, primitive, and rebellious, and so on. (*b*) Minorities. These 12 items deal with various groups (other than Jews and Negroes), including minority political parties and religious sects, foreigners, Oklahomans (in California), zoot-suiters, criminals, and so on. (*c*) "Patriotism." These 10 items deal with America as an in-group in relation to other nations as out-groups. The items express the attitude that foreign, "inferior" nations should be subordinate; they include a value for obedience and a punitive attitude toward value-violators, and, finally, they express regarding permanent peace a cynicism which is rationalized by moralistic, heriditarian theories of aggressive, threatening out-group nations.

The reliabilities for the subscales ranged from .80 to .91; and for the total E scale .91. These figures, considered together with the correlations of .74 to .83 among the subscales, and the subscale-Total E scale correlations of .90 to .92, indicate a generality in ethnocentric ideology that is almost as great as and even more remarkable than that found in A–S.

The correlations of A–S with E complete the picture. The A–S scale correlates .80 with the E scale, and from .69 to .76 with the subscales. Through successive revisions there finally emerged a single E scale of 10 items (including 4 A–S items) which had reliabilities of .7 to .9 in different groups of subjects. It is clear that an attempt to understand prejudice psychologically must start with the total pattern of ethnocentric thinking, including both general out-group rejection and in-group submission-idealization.

Space does not permit a detailed discussion of the study of politics and religion. Ethnocentrism is related, though not very closely, to political conservatism ($r = .5$) and to support of the more conservative political groupings. In the responses of individuals scoring high on the conservatism scale, two patterns could be distinguished: a traditional, *laissez-faire* conservatism as opposed to "pseudoconservatism" in which a profession of belief in the tenets of traditional conservatism is combined with a readiness for violent change of a kind which would abolish the very institutions with which the individual appears to identify himself. The latter appeared to contribute more to the correlation between E

and conservatism than did the former. The nonreligious are less ethnocentric on the average than the religious, although such sects as the Quakers and Unitarians made low E scale means (nonethnocentric).

The Study of Personality

The main variables underlying the various ideological areas above represent personality trends expressed in ideological form. A primary hypothesis in this research is that an individual is most receptive to those ideologies which afford the fullest expression to his over-all personality structure. Thus, a person clinically described as strongly authoritarian, projective, and destructive is likely to be receptive to an antidemocratic ideology such as ethnocentrism—ultimately fascism as the total social objectification of these trends—because it expresses his needs so well.

The attempt at a quantitative investigation of personality variables underlying ethnocentric ideology led to the construction of a personality scale. It was called, for convenience, the F scale because it was intended to measure some of the personality trends which seemed to express a predisposition or deep-lying receptivity to fascism. The items are statements of opinion and attitude in nonideological areas (not dealing with formal groups or social institutions) such as self, family, people in general, sex, personal values, and so on; they are not tied by official statement or surface meaning to items in the other scales. Any consistency in response to the F and E scales, as indicated by the correlation between them, must be due primarily to the fact that both scales express the same underlying trends, since their surface content is quite different. The main difference between the scales is that the F items are less openly ideological.

Ten main variables guided scale construction, each variable being represented by a cluster of several items. The clusters were partially overlapping, since several items were intended to express more than a single variable. In three successive forms the scale contained 38, 34, then 30 items, but the 10 main variables were always represented.

The cluster variables were as follows: conventional values, authoritarian submission, authoritarian aggression, anti-intraception, superstition-stereotypy, pseudotoughness, power, cynicism, projectivity, and sex.

Three of these clusters may be discussed to illustrate the general approach. "Authoritarian submission" refers to an inability seriously to criticize, reject, or actively rebel against one's main in-group (particularly the family) figures and values. There is a highly moralized and idealized conception of authority-representatives and a submissive relation to them. Examples: "No sane, normal, decent person could ever think of hurting a close friend or relative"; "Every person should have complete faith in some supernatural power whose decisions he obeys without question."

"Anti-intraception" involves opposition to a psychological, insightful view of people and oneself. This includes a rejection of emotion and of attempts to look into one's deeper motives and conflicts. Personal inquiries tend to be regarded as prying, and there is often an exaggerated idea of how much prying is going on. Work and keeping busy are emphasized as ways of "not thinking about yourself." Examples: "When a person has a problem or worry, it is best for him not to think about it but to keep busy with more cheerful things"; "Nowadays more and more people are prying into matters that should remain personal and private."

"Projectivity" refers to the disposition to imagine strange, evil, dangerous, destructive forces at work in the outer world; these imaginings have only the smallest basis in reality but can be under-

stood as projections of the individual's deep-lying sexual and aggressive strivings. Examples: "Wars and social troubles may someday be ended by an earthquake or flood that will destroy the whole world"; "Nowadays when so many different kinds of people move around and mix together so much, a person has to protect himself especially carefully against catching an infection or disease from them"; "The wild sex life of the old Greeks and Romans was tame compared to some of the goings-on in this country, even in places where people might least expect it."

The successive forms of the F scale involved elimination, modification, and addition of items, based on both statistical considerations and on theoretical requirements of richness of ideas and over-all inclusiveness. The reliability of the scale increased from an average of .74 for the first form to .85 on the last. Each high quartile scorer is high on most items and clusters; on each item and cluster the difference between high scorers (total scale) and low scorers is statistically significant.

Correlations of F with A–S and E increased from an average of about .6 to about .75 in later forms, that is, higher than the correlation of .50 with the conservatism scale. This correlation, in conjunction with the clinical findings reported below, gives evidence of the functional role of personality trends in organizing and giving meaning to surface attitudes, values, and opinions.

Does ethnocentrism help the individual avoid conscious ambivalence toward his family by displacing the hostility onto out-groups (the morally "alien") and thus leave in consciousness exaggerated professions of love toward family and authority? Do high scorers on the F scale (who are usually also ethnocentric) have an underlying anticonventionalism, in-group- and family-directed hostility, a tendency to do the very things they rigidly and punitively oppose in others? What impels an individual to feel, for example, that aggression against his family is unthinkable and yet to agree that "homosexuals should be severely punished" and (during the war) that the "Germans and Japs should be wiped out"? Such contradictions suggest that the deeper personality trends of high scorers are antithetical to their conscious values, opinions, and attitudes. The clinical studies reported below investigate further these and other questions.

The so-called "projective questions" are intermediate between the scales and the intensive clinical techniques. As part of the questionnaire they are used in group studies in order to determine how common in larger populations were the relationships discovered in clinical studies. They are open questions to be answered in a few words or lines; each question deals with events or experiences which are likely to have emotional significance for the individual. The original set of about 30 questions was gradually reduced to 8, which were both statistically differentiating and theoretically inclusive. These deal with "what moods are unpleasant," "what desires are hard to control," "what great people are admired," "what would drive a person nuts," "what are the worst crimes," "what moments are embarrassing," "how to spend your last six months," "what is most awe-inspiring."

The responses of the entire high and low quartiles on the A–S (later the total E) scale were contrasted. For each question "high" and "low" scoring categories were made; a "high" category expresses a personality trend which seems most characteristic of ethnocentrists and which can be expected significantly to differentiate the two groups. A scoring manual, giving the specific categories (usually two to six) for each item, was the basis on which two independent raters scored each response (not knowing the actual A–S or E score of the subjects). Each response was

scored "high," "low," or "neutral"—the neutral category being used when the response was omitted, ambiguous, or when it contained "high" and "low" trends equally. Less than 10 percent of the responses received neutral scores.

The scoring agreement for the battery of items averaged 80 to 90 percent on a variety of groups (total, 200 to 300). The high quartiles received an average of 75–90 percent "high" scores, as compared with 20–40 percent "high" scores for the low quartiles. Almost never was an individual ethnocentrist given more than 50 percent low scores, and conversely for the anti-ethnocentrists. For each item the difference between the two groups was always significant at better than the 1 percent level.

The differences between the ethnocentric and anti-ethnocentric groups may be illustrated by the scoring of the item "What experiences would be most awe-inspiring for you?" The "low" categories are: (*a*) Values which refer to personal achievement (intellectual, esthetic, scientific), contribution to mankind, the realization of democratic goals by self and society, and so on. (*b*) "Power," as exemplified in man's material-technological achievements and in nature. (*c*) Intense nature experiences in which there are clear signs of esthetic, sensual-emotional involvement.

The "high" categories for this item, in contrast, are: (*a*) "Power" in the form of deference and submission toward powerful people; emphasis on a generally authoritarian and ritualized atmosphere (military, superficial religious, patriotic, etc.). (*b*) Personal power in self, with others playing a deferent role. (*c*) Destruction-harm of people (e.g., "death of a close relative"; no open hostility). (*d*) Values which refer to conventionalized sex, material security, ownership, vague sense of virtue, and so on. (*e*) Dilute nature experiences which differ from those of the low-scorers in that they are matter-of-fact, unspecific, surface descriptions with no indication of sensual-emotional involvement.

Some other general differences between these two groups were found. Deeplying trends such as hostility, dependency, sexuality, curiosity, and the like exist in both groups, but in the unprejudiced group they are more ego-integrated, in the sense of being more focal, more tied to other trends, more complex affectively, and with fewer defenses. This group is also more aware of inner conflicts, ambivalence, and tendencies to violate basic values. Their inner life is richer if more troubled; they tend to accuse themselves of faults, while the prejudiced group externalizes and engages more in idealization of self and family.

Clinical Analysis of Interview Material

As mentioned above, those scoring extremely high or extremely low on the overt ethnocentrism scale of the questionnaire were further subjected to clinical interviews and to projective tests.

The interviews covered the following major fields: vocation, income, religion, politics, minority groups, and clinical data. The directives given to the interviewer listed in each field both the kinds of things it was hoped to obtain from the subject and suggestions as to how these things might indirectly be ascertained by questioning. The former were the "underlying questions"; they had reference to the variables by means of which the subject was eventually to be characterized. The "manifest questions," those actually put to the subject, were framed in such a way as to conceal as much as possible the real purpose of the interview and yet elicit answers that were significant in terms of over-all hypotheses. The manifest questions used to obtain material bearing on a given underlying question were allowed to vary greatly from subject to subject, depending in each case on the subject's ideology,

surface attitudes, and defenses. Nevertheless a number of manifest questions, based on general theory and experience, were formulated for each underlying question. Not all of them were asked each subject.

Examples of manifest questions, taken from the area of Income are: "What would you do with (expected or desired) income?" and "What would it mean to you?" The corresponding underlying issues are the subject's aspirations and phantasies as to social status, as to power as a means to manipulate others, as to (realistic or neurotic) striving for security, as to lavish and exciting living, the readiness really to take chances, and so forth.

It was the task of the interviewer subtly to direct the course of the interview in such a way that as much as possible would be learned about these underlying attitudes without giving away to the subject the real foci of the inquiry.

In attempting to achieve a crude quantification of the interview material, so that group trends might be ascertained, there was developed an extensive set of scoring categories, comprising approximately a hundred headings. An attempt was made to encompass as much as possible of the richness and intricacy of the material. The complexity of the categories introduced inferential and subjective elements, but, as it turned out, this did not prevent adequate inter-rater reliability and validity. The categories were arrived at on the basis of a preliminary study of the complete interviews and of all the other available material pertaining to the same subjects. These categories represent, in fact, the hypotheses as to which clinical characteristics go with presence or absence of prejudice.

In order to test all the categories, passages of the interview protocols referring directly to political or social issues and all other data that might indicate the subject's identity or ideological position were carefully removed before two clinically trained scorers undertook the evaluation of the protocols.

Interviews of 40 women were thus evaluated. (A later report will present results from a group of men.) Three kinds of judgments were used for each category: (1) whether the interview revealed attitudes tentatively classified as "high" or as "low"; (2) whether no decision could be reached; or, more often, (3) whether no material was available on the issue in question. A number of categories proved nondiscriminating either because "high" and "low" statements appeared with equal frequency in the interviews of those found "high" and of those found "low" on the questionnaire, or because of a large proportion of "neutral" responses.

Some of the most discriminating categories included the following. Of the fifteen interviewed women who were extremely low on ethnocentrism, 0 (none) displayed a conventional "idealization" of the parents, the variable previously assumed to be characteristic of ethnocentrism, whereas 12 showed an attitude of objective appraisal of the parents.[2] On the other hand, of the 25 women interviewees extremely high on ethnocentrism, 11 clearly displayed the "high" and only 6 the "low" variant (the remaining 8 being "neutral"). This distribution of attitudes toward parents is in line with the general glorification of and

[2] In view of the small number of cases (40) and the frequency of the neutral categories (about 30 percent), these differences between the high and low scorers must be regarded as tentative. However, there is additional evidence that these differences would be found in a large sample. (1) Even with this small number of cases the differences are very striking. (2) The data on men appear to reveal similar differences. This not only provides an independent confirmation, but it will provide a sample twice as large as the present one. (3) The variables considered here are similar to those found to be differentiating in the ideological material, the Thematic Apperception Test, and the projective questions.

submission to in-group authority, on the surface at least, by the high scorers on ethnocentrism. In fact, the corresponding figures on the category "submission to parental authority and values (respect based on fear)" *vs.* "principled independence" are 1 to 7 for the "low" subjects as against 9 to 0 for the "high" subjects.

The "high" women emphasize sex as a means for achieving status; they describe their conquests and—as they do in other fields as well—rationalize rather than admit failures and shortcomings, whereas the "lows" do not shrink from open admission of inadequacies in this respect (8 to 3 for "highs"; 1 to 8 for "lows"). In the same vein we find in "highs" underlying disrespect and resentment toward the opposite sex, typically combined with externalized, excessive and counteractive "pseudoadmiration," *vs.* "genuine respect and fondness for opposite sex" in the "lows" (11 to 4 for "highs"; 2 to 7 for "lows"). Similarly, the attitude toward the opposite sex in the "high" women is power-oriented, exploitative, manipulative, with an eye on concrete benefits hiding behind superficial submission as contrasted with a warm, affectionate and love-seeking attitude on the part of the "lows." Thus, the traits desired in men by "high" women are: hard-working, energetic, go-getting, moral, clean-cut, deferent, "thoughtful" toward the woman; the desiderata mentioned by the "low" women, on the other hand, are: companionship, common interests, warmth, sociability, sexual love, understanding, and liberal values. (For the entire pattern just described the figures are 14 to 4 for the "highs" and 2 to 10 for the "lows.")

As to attitudes toward people in general, the "highs" tend to assume an attitude of "moralistic condemnation" *vs.* the "permissiveness" shown toward individuals by the lows (14 to 3 for the "highs," 2 to 10 for the "lows"). Of special importance for the problem discussed here is the "hierarchical conception of human relations" in the "highs" as compared with an "equalitarianism and mutuality" in the "lows" (13 to 2 in the "highs" and 1 to 10 in the "lows").

All through the material it was frequently observed that the difference between the high and low subjects does not lie so much in the presence or absence of a basic tendency but rather in the way of dealing with such tendencies. As an illustration from the field of interpersonal relationships, we may refer to the category of Dependence. Whereas the dependence of the high subjects tends to be diffuse, ego-alien, and linked to an infantile desire to be taken care of, the dependence of the lows is focal and love-seeking as can be expected in cases where a real object relationship has been established (11 to 1 in the highs; 1 to 7 in the lows). The traits desired in friends are in many ways similar to those desired in the opposite sex (see above); we find emphasis on status, good manners, and so forth in the highs as compared with intrinsic values in the lows (9 to 2 for highs, 0 to 10 for lows.)

In the high scorer's attitude toward the Self, we find self-glorification mixed with feelings of inferiority which are not faced as such, conventional moralism, the belief in a close correspondence between what one is and what one wishes to be, and the "denial of genuine causality" (e.g., an explanation of one's traits or symptoms in terms of hereditary or accidental factors), as contrasted to opposite attitudes in the lows, with figures generally as discriminatory or better than those mentioned above for the other fields.

In the case of more general categories pertaining to personality dynamics an unusually large proportion were found to be discriminating. This might be due to the fact that the scoring of these categories was based on the over-all impression of the subject rather than on a spe-

cific piece of information. High-scoring women tend to give particular evidence of "rigid-moralistic anal reaction-formations" as ends in themselves, e.g., totalitarian-moralistic conceptualization of two kinds of people—"clean and dirty"—and overemphasis on propriety and kindliness, often with underlying aggression. The women with low scores show more evidence of "oral character structure"; and when such values as cleanliness and kindliness are present they are of a more functional nature.

As far as aggression is concerned, the high-scoring women tend toward a diffuse, depersonalized, moralistic, and punitive type of aggression, whereas the aggression of the low-scoring women is more focal and personalized, and more often it seems to be elicited by violation of principles or as a response to rejection by a loved object.

Ambivalence, e.g., toward the parents, is not admitted into consciousness by the "high" subjects but is rather solved by thinking in terms of dichotomies and by displacement onto out-groups. The ambivalence of the "lows" is more often expressed against the original objects (e.g., parents) or representatives, in reality, of the original objects, e.g., real authority.

There is a strong tendency in the high-scoring women to display "femininity" exclusively, whereas the low-scoring women are more ready to accept and to sublimate their masculine traits.

Some of the categories scored under the tentative assumption of their relevance to prejudice did not prove discriminating. Among these are various "childhood events," e.g., death or divorce of parents, number of siblings, and order of birth. The conception of one's own childhood, e.g., image of father and mother, proved only slightly discriminating, mostly because of the great number of neutral scores due often to lack of information in these categories. The fact that some of the categories were not discriminating may be taken as evidence that the raters were at least partially successful in their attempt to eliminate halo effect.

As was mentioned above, the over-all contrast between the highly prejudiced and the tolerant women hinges less than originally expected on the existence or absence of "depth" factors such as latent homosexuality, but rather, as seen here again, on the way they are dealt with in the personality: by acceptance and sublimation in our tolerant extremes, by repression and defense measures in our prejudiced extremes.

It is because of their repressions, it may be supposed, that the high scorers are found to be outstanding on such formal characteristics as rigidity, anti-intraception, pseudoscientific thinking, and so forth.

The differences between high and low scorers revealed by the several independent techniques of the study reported here are consistent one with another and suggest a pattern which, embracing as it does both personality and ideology, may be termed the "antidemocratic personality."

6.

OPINIONS ABOUT NEGRO INFANTRY PLATOONS IN WHITE COMPANIES OF SEVEN DIVISIONS

By Information and Education Division, U. S. War Department

What do the white company grade officers and the white platoon sergeants in E.T.O. think of the combat performance of Negro rifle platoons which were attached to their companies in March and April and fought side by side with white platoons through VE-day?

This question is answered by a survey, made in late May and early June, 1945, by personally interviewing 250 respondents, namely, all available white company grade officers and a representative sample of platoon sergeants in 24 companies containing Negro platoons in several infantry divisions, namely, the 1st, 2nd, 9th, 69th, 78th, 99th, and 104th. Standardized questions were used in the survey, which was conducted by five trained interviewers of the Research Branch, I and E Division, E.T.O.

In all except one of the companies visited, the standard organization of three rifle platoons and one heavy infantry platoon had been augmented by one rifle platoon of colored soldiers. The colored platoons were made up of men from rear echelon units who *volunteered* for service with the infantry and were trained for approximately six weeks in reinforcement depots, usually by a white officer or noncom who later led them into combat.

In generalizing the opinions here reported, the fact that the Negro infantrymen in these platoons were volunteers must be kept in mind, as must also the fact that not all of the platoons experienced heavy and arduous fighting.

Opinions of White Officers and Enlisted Men in Companies with Negro Platoons

"How did you feel at first about serving in a company that had white platoons and colored platoons?" *

Response	White officers, percent	White noncoms, percent
Relatively unfavorable ("Skeptical," "didn't like it," "thought it'd cause trouble," etc.)	64	64
Relatively favorable ("Willing to try it," "made no difference," "didn't mind," etc.)	33	35
No answer	3	1

From *Report No.* B–157 (Washington: Information and Education Division, Army Service Forces, U. S. War Department, 1945). Based on survey made in May–June, 1945, by Research Branch, Information and Education Division, Headquarters, European Theater of Operations, under authority of the Commanding General, ETOUSA. Reprinting of this study does not in any way constitute an endorsement by the War Department of this volume.

* In this report the tabular material is to be read as textual content where it occurs. The italicized quotations reproduce the questions asked of the interviewees.

"Has your feeling changed since having served in the same unit with colored soldiers?"

Response	White officers, percent	White noncoms, percent
No, my feeling is still the same	16	21
Yes, have become more favorable toward them,[a] ("feel more respect for them," "like them better," etc.)	77	77
No answer	7	2

[a] No cases were found in which an individual reported his attitude had become less favorable.

"How well did the colored soldiers in this company perform in combat?"

Response	White officers, percent	White noncoms, percent
Not well at all	0	0
Not so well	0	1
Fairly well	16	17
Very well	84	81
Undecided	0	1

In commenting on this question, respondents frequently gave detailed accounts of combat performance. Positive qualities stressed were aggressiveness in attack, effective use of fire-power, adeptness at close-in fighting, team-work in battle. Negative qualities reported in a few instances were that at first the men sometimes went forward too rapidly—too far in an attack. Some officers stressed the fact that these colored soldiers, being volunteers, may have had exceptional combat qualities. Others mentioned that in their units there had not been an adequate test under the most severe type of fighting, such as sustained attacks under heavy mortar or artillery fire. It should be noted, however, that the performance of the colored troops was rated just as high, if not higher, by the white officers and noncoms in those companies in which the colored platoons have had severe fighting as by respondents from other units.

"With the same Army training and experience, how do you think colored troops compare with white troops as infantry soldiers?"

Response	White officers, percent	White noncoms, percent
Not as good as white troops	5	4
Just the same as white troops	69	83
Better than white troops	17	9
No answer	9	4

"How have the white and colored soldiers gotten along together?"

Response	White officers, percent	White noncoms, percent
Not well	0	0
Not as well in garrison as in combat	14	4
Fairly well	7	36
Very well	73	60
No answer	6	0

Replies are somewhat more favorable from white officers and white noncoms with a Northern background than from those with a Southern background, but differences in opinion are not great. Actual friction between white and colored soldiers is said to have been confined to isolated cases involving white soldiers from "outside" units who did not know the combat record of the colored troops. Evidence indicates that white and colored soldiers have gotten along best together in those units in which they have shared the heaviest combat. While many of the officers in further questioning expressed some doubt as to how well the situation would work out if their unit remains in the Army of Occupation, or other semi-permanent garrison status, 9 out of 10 said there had been no difficulties as yet.

"If colored soldiers are used as infantry, do you think they should be set up by platoons as they are here, or would some other way be better?"

Response[a]	White officers, percent	White noncoms, percent
In the same platoon with white soldiers	7	1
In a platoon within the same company	62	89
In separate companies	18	12
In separate battalions or larger organizations	10	2
No answer	3	0

[a] Most of those interviewed volunteered one or more reasons for their answer.

Among those who favor the platoon basis, the reasons given, *in order of frequency*, are:

(1) *Competition-emulation* ("encourages friendly competition"; "each tried to make a good showing"; "gives them something to come up to").
(2) *Avoidance of friction* ("saves any chance of trouble to have them in their own platoon"; "because of the old feeling of boys from the South").
(3) *Better discipline and control among the colored soldiers* ("whites have a steadying influence on them"; "colored boys feel more secure in combat this way").
(4) *Feeling of participation or nondiscrimination on part of the colored soldiers* ("gives them the feeling of being with the white boys"; "avoids that feeling of being set apart and discriminated against").
(5) *Improved interracial understanding* ("work close enough together so they can each get to know the other better and see what they do").

Among the minority who favored separate companies or larger units, the main reasons given were avoidance of friction

(especially in garrison situations) and better discipline. A few men gave as their reason their personal feeling of not wishing to be in a company containing colored troops.

Independent Check in a Cross-section Survey

In the course of a survey of a representative cross section of 1,710 white enlisted men in ETO field forces, to ascertain men's information and orientation needs, two questions were asked about the use of Negro troops. This survey was independent of the interviews tabulated above.

The responses to the two questions asked in the cross-section survey were tabulated separately for four subgroups indicated below. The sample in some groups is small and therefore subject to a larger margin of error than is customary in Research Branch reports.

"Some Army divisions have companies which include Negro and white platoons. How would you feel about it if your outfit was set up something like that?"

	Percentage of white enlisted men answering: "Would dislike it very much."
Cross section of field force units which do not have colored platoons in white companies (1,450 cases)	62
Men in same division, but not in same regiment as colored troops (112 cases)	24
Men in same regiment, but not in same company as colored troops (68 cases)	20
Men in company with a Negro platoon (80 cases)	7

"In general, do you think it is a good idea or a poor idea to have the same company in a combat outfit include Negro platoons and white platoons?"

	Percentage of white enlisted men saying: "very good idea" or "fairly good idea."
Cross section of field force units which do not have colored platoons in white companies	18
Men in same division but not in same regiment as colored troops	50
Men in same regiments but not in same company as colored troops	66
Men in company with a Negro platoon	64

These differences in attitude, varying with extent of experience with platoons of colored troops, can hardly be attributed to differences in geographical origin. For example, 31 percent of the white soldiers whose company has a Negro platoon are from the South, as are 34 percent of the soldiers in the cross section of field force units.

Background Information about Colored Troops in Those Infantry Platoons

The soldiers in the Negro platoons were somewhat superior to other colored troops in ETO in education and AGCT but the differences actually are not striking.

	Percentage who had graduated from high school
Colored in infantry platoons	22
Colored in ETO (cross section)	18
White riflemen (cross section)	41

Percentage with AGCT scores above Class IV:

Colored in infantry platoons	29
Colored in ETO (cross section)	17
White riflemen (cross section)	71

Percentage from the South (including border states):

Colored in infantry platoons	67
Colored in ETO (cross section)	76

As compared with white riflemen the Negro infantrymen were somewhat younger. Ten percent of the colored were 30 years old or over, as were 20 percent of the white riflemen.

Branches of service from which the transfer to infantry was made were as follows:

Arm or service	Percent of total Negro volunteers
Corps of Engineers	38
Quartermaster Corps	29
Transportation Corps	26
Signal Corps	3
Ordnance Dept.	2
All other branches	2

Of all who were converted to riflemen, 63 percent came from the following six military occupation specialties, in order of frequency:

Truck driver, light (MOS 345)
Duty soldier III (590)
Longshoreman (271)
Basic (521)
Foreman construction (059)
Cargo checker (470)

XIII

Mass Communication and Propaganda

1.

THE BASIC PSYCHOLOGY OF RUMOR

By Gordon W. Allport and Leo J. Postman

Rumors in Wartime

During the year 1942, rumor became a national problem of considerable urgency. Its first dangerous manifestation was felt soon after the initial shock of Pearl Harbor. This traumatic event dislocated our normal channels of communication by bringing into existence an unfamiliar and unwelcome, if at the same time a relatively mild censorship of news, and it simultaneously dislocated the lives of millions of citizens whose futures abruptly became hostages to fortune.

This combination of circumstances created the most fertile of all possible soils for the propagation of rumor. We now know that *rumors concerning a given subject-matter will circulate within a group in proportion to the importance and the ambiguity of this subject-matter in the lives of individual members of the group.*

The affair of Pearl Harbor was fraught with both importance and ambiguity to nearly every citizen. The affair was important because of the potential danger it represented to all of us, and because its aftermath of mobilization affected every life. It was ambiguous because no one seemed quite certain of the extent of, reasons for, or consequences of the attack. Since the two conditions of rumor —importance and ambiguity—were at a maximum, we had an unprecedented flood of what became known as "Pearl Harbor rumors." It was said that our fleet was "wiped out," that Washington didn't dare to tell the extent of the damage, that Hawaii was in the hands of the Japanese. So widespread and so demoralizing were these tales that, on February 23, 1942, President Roosevelt broadcast a speech devoted entirely to denying the harmful rumors and to reiterating the official report on the losses.

Did the solemn assurance of the Commander in Chief restore the confidence of the people and eliminate the tales of suspicion and fear? It so happens that a bit of objective evidence on this question became available to us almost by accident. On the twentieth of February, before the President's speech, we had asked approximately 200 college students whether they thought our losses at Pearl Harbor were "greater," "much greater," or "no greater" than the official Knox report had stated. Among these students, 68 percent had believed the demoralizing rumors in preference to the official report, and insisted that the losses were "greater" or "much greater" than Washington admitted. Then came the President's speech. On February 25 an equivalent group of college students were asked the same question. Among those who had not heard or read the speech

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the proportion of rumor-believers was still about two thirds. But among those who were acquainted with the President's speech, the number of rumor-believers fell by 24 percent. It is important to note that, in spite of the utmost efforts of the highest authority to allay anxiety, approximately 44 percent of the college population studied were too profoundly affected by the event and by the resulting rumors to accept the reassurance.

The year 1942 was characterized by floods of similar fear-inspired tales. Shipping losses were fantastically exaggerated. Knapp records one instance where a collier was sunk through accident near the Cape Cod Canal. So great was the anxiety of the New England public that this incident became a fantastic tale of an American ship being torpedoed with the loss of thousands of nurses who were aboard her.[1]

Such wild stories, as we have said, are due to the grave importance of the subject for the average citizen and to the ambiguity to him of the objective situation. This ambiguity may result from the failure of communications, or from a total lack of authentic news, a condition that often prevailed in war-torn countries or among isolated bands of troops who had few reliable sources of news. Again, the ambiguity may be due to the receipt of conflicting news stories, no one more credible than another; or it may be due (as in the case of the Pearl Harbor rumors) to the distrust of many people in the candor of the Administration and in the operation of wartime censorship. As the war progressed, a higher degree of confidence in our news services was rapidly achieved, and rumors concurrently subsided.

In addition to the fear-rumors of 1942, which persisted until the tide of victory commenced to turn, there was a still more numerous crop of hostility-rumors whose theme dealt always with the shortcomings, disloyalty, or inefficiency of some special group of cobelligerents. The Army, the Navy, the Administration, our allies, or American minority groups were the most frequent scapegoats in these rumors. We were told that the Army wasted whole sides of beef, that the Russians greased their guns with lend-lease butter, that Negroes were saving icepicks for a revolt, and that Jews were evading the draft.

These hostility rumors were the most numerous of all. An analysis of 1,000 rumors collected from all parts of the country in 1942[2] revealed that they could be classified fairly readily as:

Hostility (wedge-driving) rumors	= 66 percent
Fear (bogey) rumors	= 25 percent
Wish (pipe-dream) rumors	= 2 percent
Unclassifiable rumors	= 7 percent

To be sure, the proportion of fear and wish rumors soon altered. As victory approached, especially on the eve of V–E and V–J day, the whirlwind of rumors was almost wholly concerned with the cessation of hostilities, reflecting a goal-gradient phenomenon whereby rumor under special conditions hastens the completion of a desired event. But, throughout the war and continuing to the present, it is probably true that the majority of all rumors are of a more or less slanderous nature, expressing hostility against this group or that.

The principal reason why rumor circulates can be briefly stated. It circulates because it *serves the twin function of explaining and relieving emotional tensions felt by individuals.*[3]

[1] R. H. Knapp, "A Psychology of Rumor," *Pub. Op. Quart.*, 1944, VIII, 22–37.

[2] R. H. Knapp, *ibid.*, 25.

[3] This brief formula leaves out of account only the relatively few rumors which seem to serve the purpose of "phatic communication"—a form of idle conversation to facilitate social intercourse. When a lull occurs in a conversation, an individual may "fill in" with the latest bit of gossip that

The Pearl Harbor rumors, for example, helped to *explain* to the teller why he felt such distressing anxiety. Would his jitters not be justified if it were true that our protecting fleet was "wiped out" at Pearl Harbor? Something serious must have happened to account for his anxiety. Families deprived of sons, husbands, or fathers vaguely cast around for someone to blame for their privation. Well, the Jews, who were said to be evading the draft, were "obviously" not doing their share and thus the heavy burden falling on "good citizens" was explained. True, this draft-evasion charge did not last very long, owing, no doubt, to the inescapable evidence of heavy enlistments among Jews and of their heroic conduct in the war. But when shortages were felt, the traditional Jewish scapegoat was again trotted out as a convenient explanation of the privations suffered. Their operation of the black market "explained" our annoying experiences in the futile pursuit of an evening lamb chop.

To blame others verbally is not only a mode of explanation for one's emotional distress, but is at the same time a mode of *relief*. Everyone knows the reduction of tension that comes after administering a tongue lashing. It matters little whether the victim of the tongue lashing is guilty or not. Dressing down *anyone* to his face or behind his back has the strange property of temporarily reducing hatred felt against this person or, what is more remarkable, of reducing hatred felt against any person or thing. If you wish to deflate a taut inner tube you can unscrew the valve or you can make a puncture. Unscrewing the valve corresponds to directing our hostility toward the Nazis or Japanese, who were the cause of our suffering. Making a puncture corresponds to displacing the hostility upon innocent victims or scapegoats. In either case, the air will escape and relaxation follow. To blame Jews, Negroes, the Administration, brass hats, the OPA, or the politicians is to bring a certain relief from accumulated feelings of hostility, whatever their true cause. Relief, odd as it may seem, comes also from "bogey" rumors. To tell my neighbor that the Cape Cod Canal is choked with corpses is an easy manner of projecting into the outer world my own choking anxieties concerning my son or my friends in combat service. Having shared my anxiety with my friend by telling him exaggerated tales of losses or of atrocities, I no longer feel so much alone and helpless. Through my rumor-spreading, others, too, are put "on the alert." I therefore feel reassured.

Experimental Approach

Leaving now the broader social setting of the problem, we ask ourselves what processes in the human mind account for the spectacular distortions and exaggerations that enter into the rumor-process, and lead to so much damage to the public intelligence and public conscience.

Since it is very difficult to trace in detail the course of a rumor in everyday life, we have endeavored by an experimental technique to study as many of the basic phenomena as possible under relatively well controlled laboratory conditions.

Our method is simple. A slide is thrown upon a screen. Ordinarily, a semidramatic picture is used containing a large number of related details. Six or seven subjects, who have not seen the picture,

comes to mind, without being motivated by the deeper tensions that underlie the great bulk of rumor-mongering

In this paper we cannot enter into a fuller discussion of the reasons why people believe some rumors and not others. This question is carefully studied by F. H. Allport and M. Lepkin, "Wartime Rumor of Waste and Special Privilege: Why Some People Believe Them," *J. Abnorm. & Soc. Psychol*, 1945, XL, 3–36.

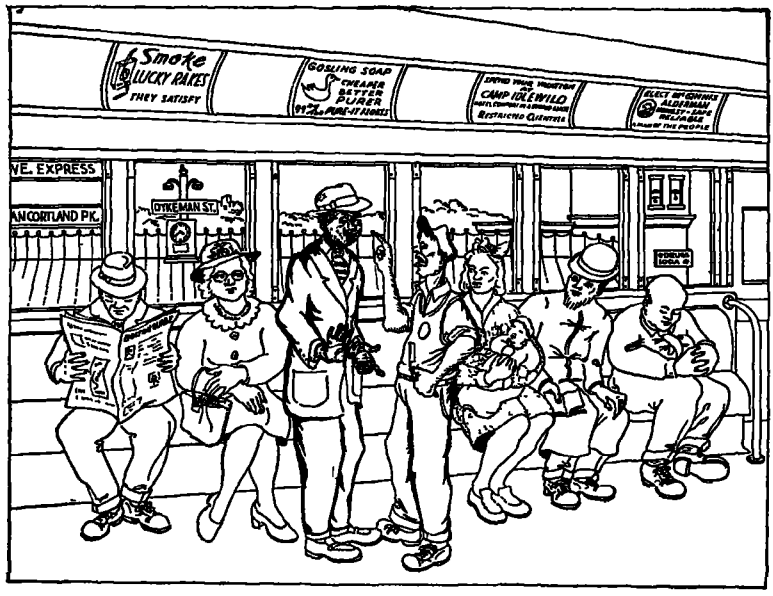


FIG. 1. A sample of pictorial material employed in the experiments. Here is a typical terminal report (the last in a chain of reproductions): "This is a subway train in New York headed for Portland Street. There is a Jewish woman and a Negro who has a razor in his hand. The woman has a baby or a dog. The train is going to Deyer Street, and nothing much happened."

wait in an adjacent room. One of them enters and takes a position where he cannot see the screen. Someone in the audience (or the experimenter) describes the picture, giving about twenty details in the account. A second subject enters the room and stands beside the first subject who proceeds to tell him all he can about the picture. (All subjects are under instruction to report as "accurately as possible what you have heard.") The first subject then takes his seat, and a third enters to hear the story from the second subject. Each succeeding subject hears and repeats the story in the same way. Thus, the audience is able to watch the deterioration of the rumor by comparing the successive versions with the stimulus-picture which remains on the screen throughout the experiment.

This procedure has been used with over forty groups of subjects, including college undergraduates, Army trainees in ASTP, members of community forums, patients in an Army hospital, members of a Teachers' Round Table, and police officials in a training course. In addition to these adult subjects, children in a private school were used, in grades from the fourth through the ninth. In some experiments, Negro subjects took part along with whites, a fact which, as we shall see, had important consequences when the test-pictures depicted scenes with a "racial angle."

All of these experiments took place before an audience (20–300 spectators). By using volunteer subjects, one eliminates the danger of stage fright. There was, however, a social influence in all the audience situations. The magnitude of this influence was studied in a control group of experiments where no one was present in the room excepting the subject and the experimenter.

At the outset, it is necessary to admit that in five respects this experimental situation fails to reproduce accurately

the conditions of rumor-spreading in everyday life. (1) The effect of an audience is considerable, tending to create caution and to shorten the report. Without an audience subjects gave on the average twice as many details as with an audience. (2) The effect of the instructions is to maximize accuracy and induce caution. In ordinary rumor-spreading, there is no critical experimenter on hand to see whether the tale is rightly repeated. (3) There is no opportunity for subjects to ask questions of his informer. In ordinary rumor-spreading, the listener can chat with his informer and, if he wishes, cross-examine him. (4) The lapse of time between hearing and telling in the experimental situation is very slight. In ordinary rumor spreading, it is much greater. (5) Most important of all, the conditions of motivation are quite different. In the experiment, the subject is striving for *accuracy*. His own fears, hates, wishes are not likely to be aroused under the experimental conditions. In short, he is not the spontaneous rumor-agent that he is in ordinary life. His stake in spreading the experimental rumor is neither personal nor deeply motivated.

It should be noted that all of these conditions, excepting the third, may be expected to enhance the accuracy of the report in the experimental situation, and to yield far less distortion and projection than in real-life rumor-spreading.

In spite of the fact that our experiment does not completely reproduce the normal conditions for rumor, still we believe that all essential changes and distortions are represented in our results. "Indoor" rumors may not be as lively, as emotionally toned, or as extreme as "outdoor" rumors, and yet the same basic phenomena are demonstrable in both.

What happens in both real-life and laboratory rumors is a complex course of distortion in which three interrelated tendencies are clearly distinguishable.

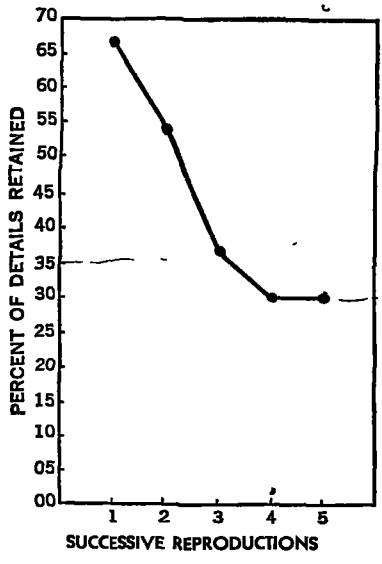


FIG. 2. Percentage of details originally given which are retained in each successive reproduction.

LEVELING

As rumor travels, it tends to grow shorter, more concise, more easily grasped and told. In successive versions, fewer words are used and fewer details are mentioned.

The number of details *retained* declines most sharply at the beginning of the series of reproductions. The number continues to decline, more slowly, throughout the experiment. Figure 2 shows the percentage of the details initially given which are retained in each successive reproduction.

The number of items enumerated in the description from the screen constitutes the 100 percent level, and all subsequent percentages are calculated from that base. The curve, based on 11 experiments, shows that about 70 percent of the details are eliminated in the course of five or six mouth-to-mouth transmissions, even when virtually no time lapse intervenes.

The curve is like the famous Ebbinghaus curve for decline in individual re-

tention, though in his experiments the interval between initial learning and successive reproductions was not as short as under the conditions of our experiment. Comparing the present curve with Ebbinghaus's, we conclude that *social memory accomplishes as much leveling within a few minutes as individual memory accomplishes in weeks of time.*

Leveling (in our experiments) never proceeds to the point of total obliteration. The stabilization of the last part of the curve is a finding of some consequence. It indicates (1) that a short concise statement is likely to be faithfully reproduced; (2) that when the report has become short and concise, the subject has very little detail to select from and the possibilities of further distortion grow fewer; (3) that the assignment becomes so easy that a virtually rote memory serves to hold the material in mind. In all cases, the terminal and the anteterminal reports are more similar than any two preceding reports.

The reliance on rote is probably more conspicuous in our experiments than in ordinary rumor-spreading, where accuracy is not the aim, where time interval interferes with rote retention, and where strong interests prevent literal memory. There are, however, conditions where rote memory plays a part in ordinary rumor-spreading. If the individual is motivated by no stronger desire than to make conversation, he may find himself idly repeating what he has recently heard in the form in which he heard it. If a rumor has become so crisp and brief, so sloganized, that it requires no effort to retain it in the literal form in which it was heard, rote memory seems to be involved. For example:

> The Jews are evading the draft;
> The CIO is communist controlled;
> The Russians are nationalizing their women.

We conclude that whenever verbal material is transmitted among a group of people whether as rumor, legend, or history, change will be in the direction of greater brevity and conciseness. Leveling, however, is not a random phenomenon. Our protocols show again and again that items which are of particular interest to the subjects, facts which confirm their expectations and help them to structure the story, are the last to be leveled out and often are retained to the final reproduction.

Sharpening

We may define sharpening as the selective perception, retention, and reporting of a limited number of details from a larger context. Sharpening is inevitably the reciprocal of leveling. The one cannot exist without the other, for what little remains to a rumor after leveling has taken place is by contrast unavoidably featured.

Although sharpening occurs in every protocol, the same items are not always emphasized. Sometimes, a trifling detail such as a subway advertising card becomes the focus of attention and report. Around it the whole rumor becomes structured. But, in most experiments, this same detail drops out promptly, and is never heard of after the first reproduction.

One way in which sharpening seems to be determined is through the retention of odd, or attention-getting words which, having appeared early in the series, catch the attention of each successive listener and are often passed on in preference to other details intrinsically more important to the story. An instance of this effect is seen in a series of protocols where the statement, "there is a boy stealing and a man remonstrating with him" is transmitted throughout the entire series. The unusual word "remonstrate" somehow caught the attention of each successive listener and was passed on without change.

Sharpening may also take a *numerical* turn, as in the experiments where em-

phasized items become reduplicated in the telling. For example, in reports of a picture containing the figure of a Negro, whose size and unusual appearance invite emphasis, we find that the number of Negroes reported in the picture jumps from one to "four" or "several."

There is also *temporal* sharpening manifested in the tendency to describe events as occurring in the immediate present. What happens *here* and *now* is of greatest interest and importance to the perceiver. In most instances, to be sure, the story is started in the present tense, but even when the initial description is couched in the past tense, immediate reversal occurs and the scene is contemporized by the listener. Obviously, this effect cannot occur in rumors which deal specifically with some alleged past (or future) event. One cannot contemporize the rumor that "the *Queen Mary* sailed this morning (or will sail tomorrow) with 10,000 troops aboard." Yet it not infrequently happens that stories gain in sharpening by tying them to present conditions. For example, a statement that Mr. X bought a chicken in the black market last week and paid $1.50 a pound for it may be (and usually is) rendered, "I hear they *are* charging $1.50 a pound on the black market for chicken." People are more interested in today than in last week, and the temptation, therefore, is to adapt (assimilate) the time of occurrence, when possible, to this interest.

Sharpening often takes place when there is a clear implication of *movement*. The flying of airplanes and the bursting of bombs are frequently stressed in the telling. Similarly, the falling flower pot in one picture is often retained and accented. Indeed, the "falling motif" may be extended to other objects such as the cigar which a man in the picture is smoking. In one rumor, it is said to be falling (like the flower pot), though in reality it is quite securely held between his teeth.

Sometimes sharpening is achieved by ascribing movement to objects which are really stationary. Thus, a subway train, clearly at a standstill at a subway station, is frequently described as moving.

Relative size is also a primary determinant of attention. Objects that are prominent because of their size tend to be retained and sharpened. The first reporter calls attention to their prominence and each successive listener receives an impression of their largeness. He then proceeds to sharpen this impression in his memory. The large Negro may, in the telling, become "four Negroes," or may become "a gigantic statue of a Negro."

There are verbal as well as physical determinants of attention. Thus, there is a pronounced tendency for *labels* to persist, especially if they serve to set the stage for the story. One picture is usually introduced by some version of the statement, "This is a battle scene," and this label persists throughout the series of reproductions. Another story usually opens with the statement, "This is a picture of a race riot."

To explain this type of sharpening, we may invoke the desire of the subject to achieve some spatial and temporal schema for the story to come. Such orientation is essential in ordinary life and appears to constitute a strong need even when imaginal material is dealt with.

An additional factor making for preferential retention of spatial and temporal labels is the *primacy* effect. An item that comes first in a series is likely to be better remembered than subsequent items. Usually, the "label" indicating place and time comes at the beginning of a report and thus benefits by the primacy effect.

Sharpening also occurs in relation to familiar symbols. In one series of reports, a church and a cross are among the most frequently reported items, although they are relatively minor details in the original picture. These well-known symbols "pack" meaning and are familiar to all. The subject feels secure in reporting them because they have an accustomed

concreteness that the other details in the picture lack. Retention of familiar symbols advances the process of conventionalization that is so prominent an aspect of rumor-embedding. In two of our pictures are a night stick, symbol of police authority, and a razor, stereotyped symbol of Negro violence. These symbols are always retained and sharpened.

Explanations added by the reporter to the description transmitted to him comprise a final form of sharpening. They represent a tendency to put "closure" upon a story which is felt to be otherwise incomplete. They illustrate the "effort after meaning" which customarily haunts the subject who finds himself in an unstructured situation. Such need for sharpening by explanation becomes especially strong when the story has been badly distorted and the report contains implausible and incompatible items. As an example, one subject who received a badly confused description of the subway scene (Fig. 1) inferred that there must have been "an accident." This explanation seemed plausible enough to successive listeners and so was not only accepted by them but sharpened in the telling.

In everyday rumors, sharpening through the introduction of specious explanations, is very apparent. Indeed, as we have said, one of the principal functions of a rumor is to explain personal tensions. To accept tales of Army waste or special privilege among OPA officials could "explain" food shortages and discomfort. Such stories, therefore, find wide credence.

Here, perhaps, is the place to take issue with the popular notion that rumors tend to expand like snowballs, become overelaborate, and verbose. Actually, the course of rumor is toward brevity, whether in the laboratory or in everyday life. Such exaggeration as exists is nearly always a sharpening of some feature resident in the original stimulus-situation. The distortion caused by sharpening is, of course, enormous in extent; but we do not find that we need the category of "elaboration" to account for the changes we observe.

Assimilation

It is apparent that both leveling and sharpening are selective processes. But what is it that leads to the obliteration of some details and the pointing-up of others; and what accounts for all transpositions, importations, and other falsifications that mark the course of rumor? The answer is to be found in the process of *assimilation*, which has to do with the powerful attractive force exerted upon rumor by habits, interests, and sentiments existing in the listener's mind.

Assimilation to Principal Theme. It generally happens that items become sharpened or leveled to fit the leading motif of the story, and they become consistent with this motif in such a way as to make the resulting story more coherent, plausible, and well-rounded. Thus, in one series of rumors, the war theme is preserved and emphasized in all reports. In some experiments using the same picture, a chaplain is introduced, or people (in the plural) are reported as being killed; the ambulance becomes a Red Cross station; demolished buildings are multiplied in the telling; the extent of devastation is exaggerated. All these reports, false though they are, fit the principal theme—a battle incident. If the reported details were actually present in the picture, they would make a "better" *Gestalt*. Objects wholly extraneous to the theme are never introduced—no apple pies, no ballet dancers, no baseball players.

Besides importations, we find other falsifications in the interest of supporting the principal theme. The original picture shows that the Red Cross truck is loaded with explosives, but it is ordinarily reported as carrying medical supplies which is, of course, the way it "ought" to be.

The Negro in this same picture is nearly always described as a soldier, although his clothes might indicate that he is a civilian partisan. It is a "better" configuration to have a soldier in action on the battlefield than to have a civilian among regular soldiers.

Good Continuation. Other falsifications result from the attempt to complete incompleted pictures or to fill in gaps which exist in the stimulus field. The effort is again to make the resulting whole coherent, and meaningful. Thus, the sign, "Loew's Pa . . .," over a moving picture theater is invariably read and reproduced as "Loew's Palace" and Gene *Autry* becomes Gene *Autry*. "Lucky Rakes" are reported as "Lucky Strikes."

All these, and many instances like them, are examples of what has been called, in *Gestalt* terms, "closures." Falsifications of perception and memory they are, but they occur in the interests of bringing about a more coherent, consistent mental configuration. Every detail is assimilated to the principal theme, and "good continuation" is sought, in order to round out meaning where it is lacking or incomplete.

Assimilation by Condensation. It sometimes seems as though memory tries to burden itself as little as possible. For instance, instead of remembering two items, it is more economical to fuse them into one. Instead of a series of subway cards, each of which has its own identity, reports sometimes refer only to "a billboard," or perhaps to a "lot of advertising" (Fig. 1). In another picture, it is more convenient to refer to "all kinds of fruit," rather than to enumerate all the different items on the vendor's cart. Again, the occupants of the car come to be described by some such summary phrase as "several people sitting and standing in the car." Their individuality is lost.

Assimilation to Expectation. Just as details are changed or imported to bear out the simplified theme that the listener has in mind, so also many items take a form that supports the agent's habits of thought. Things are perceived and remembered the way they *usually* are. Thus a drugstore, in one stimulus-picture, is situated in the middle of a block; but, in the telling, it moves up to the corner of the two streets and becomes the familiar "corner drugstore." A Red Cross ambulance is said to carry medical supplies rather than explosives, because it "ought" to be carrying medical supplies. The kilometers on the signposts are changed into miles, since Americans are accustomed to having distances indicated in miles.

The most spectacular of all our assimilative distortions is the finding that, in more than half of our experiments, a razor moves (in the telling) from a white man's hand to a Negro's hand (Fig. 1). This result is a clear instance of assimilation to stereotyped expectancy. Black men are "supposed" to carry razors, white men not.

Assimilation to Linguistic Habits. Expectancy is often merely a matter of fitting perceived and remembered material to preexisting verbal clichés, which exert a powerful influence in the conventionalization of rumors. Words often arouse compelling familiar images in the listener's mind and fix for him the categories in which he must think of the event and the value that he must attach to it. A "zoot-suit sharpie" packs much more meaning and carries more affect than more objective words, such as, "a colored man with pegged trousers, wide-brimmed hat, etc." (Fig. 1). Rumors are commonly told in verbal stereotypes which imply prejudicial judgment, such as "draft dodger," "Japanese spy," "brass hat," "dumb Swede," "long-haired professor," and the like.

More Highly Motivated Assimilation

Although the conditions of our experiment do not give full play to emotional

tendencies underlying gossip, rumor, and scandal, such tendencies are so insistent that they express themselves even under laboratory conditions.

Assimilation to Interest. It sometimes happens that a picture containing women's dresses, as a trifling detail in the original scene, becomes, in the telling, a story exclusively about dresses. This sharpening occurs when the rumor is told by groups of women, but never when told by men.

A picture involving police was employed with a group of police officers as subjects. In the resulting protocol, the entire reproduction centered around the police officer (with whom the subjects undoubtedly felt keen sympathy or "identification"). Furthermore, the nightstick, a symbol of his power, is greatly sharpened and becomes the main object of the controversy. The tale as a whole is protective of, and partial to, the policeman.

Assimilation to Prejudice. Hard as it is in an experimental situation to obtain distortions that arise from hatred, yet we have in our material a certain opportunity to trace the hostile complex of racial attitudes.

We have spoken of the picture which contained a white man holding a razor while arguing with a Negro. In over half of the experiments with this picture, the final report indicated that the Negro (instead of the white man) held the razor in his hand, and several times he was reported as "brandishing it widely" or as "threatening" the white man with it (Fig. 1).

Whether this ominous distortion reflects hatred and fear of Negroes we cannot definitely say. In some cases, these deeper emotions may be the assimilative factor at work. And yet the distortion may occur even in subjects who have no anti-Negro bias. It is an unthinking cultural stereotype that the Negro is hot tempered and addicted to the use of razors as weapons. The rumor, though mischievous, may reflect chiefly an assimilation of the story to verbal-clichés and conventional expectation. Distortion in this case may not mean assimilation to hostility. Much so-called prejudice is, of course, a mere matter of conforming to current folkways by accepting prevalent beliefs about an out-group.

Whether or not this razor-shift reflects deep hatred and fear on the part of white subjects, it is certain that the reports of our Negro subjects betray a motivated type of distortion. Because it was to their interest as members of the race to deemphasize the racial caricature, Negro subjects almost invariably avoided mention of color. One of them hearing a rumor containing the phrase, "a Negro zoot-suiter," reported "There is a man wearing a zoot suit, *possibly* a Negro."

For one picture, a Negro reporter said that the colored man in the center of the picture "is being maltreated." Though this interpretation may be correct, it is likewise possible that he is a rioter about to be arrested by the police officer. White and Negro subjects are very likely to perceive, remember, and interpret this particular situation in quite opposite ways.

Thus, even under laboratory conditions, we find assimilation in terms of deep-lying emotional predispositions. Our rumors, like those of everyday life, tend to fit into, and support, the occupational interests, class or racial memberships, or personal prejudices of the reporter.

Conclusion: The Embedding Process

Leveling, sharpening, and assimilation are not independent mechanisms. They function simultaneously, and reflect a singular subjectifying process that results in the autism and falsification which are so characteristic of rumor. If we were to attempt to summarize what happens in a few words we might say:

Whenever a stimulus field is of potential importance to an individual, but at the

same time unclear, or susceptible of divergent interpretations, a subjective structuring process is started. Although the process is complex (involving, as it does, leveling, sharpening, and assimilation), its essential nature can be characterized as an effort to reduce the stimulus to a simple and meaningful structure that has adaptive significance for the individual in terms of his own interests and experience. The process begins at the moment the ambiguous situation is perceived, but the effects are greatest if memory intervenes. The longer the time that elapses after the stimulus is perceived the greater the threefold change is likely to be. Also, the more people involved in a serial report, the greater the change is likely to be, until the rumor has reached an aphoristic brevity, and is repeated by rote.

Now, this three-pronged process turns out to be characteristic not only of rumor but of the individual memory function as well. It has been uncovered and described in the experiments on individual retention conducted by Wulf, Gibson, Allport,[4] and, in Bartlett's memory experiments carried out both on individuals and on groups.[5]

Up to now, however, there has been no agreement on precisely the terminology to use, nor upon the adequacy of the three functions we here describe. We believe that our conceptualization of the three-fold course of change and decay is sufficient to account, not only for our own experimental findings and for the experiments of others in this area, but also for the distortions that everyday rumors undergo.

For lack of a better designation, we speak of the three-fold change as the *embedding* process. What seems to occur in all our experiments and in all related studies is that each subject finds the outer stimulus-world far too hard to grasp and retain in its objective character. For his own personal uses, it must be recast to fit not only his span of comprehension and his span of retention, but, likewise, his own personal needs and interests. What was outer becomes inner; what was objective becomes subjective. In telling a rumor, the kernel of objective information that he received has become so embedded into his own dynamic mental life that the product is chiefly one of projection. Into the rumor, he projects the deficiencies of his retentive processes, as well as his own effort to engender meaning upon an ambiguous field, and the product reveals much of his own emotional needs, including his anxieties, hates, and wishes. When several rumor-agents have been involved in this embedding process, the net result of the serial reproduction reflects the lowest common denominator of cultural interest, of memory span, and of group sentiment and prejudice.

One may ask whether a rumor must always be false. We answer that, in virtually every case, the embedding process is so extensive that no credibility whatever should be ascribed to the product. If a report does turn out to be trustworthy, we usually find that secure standards of evidence have somehow been present to which successive agents could refer for purposes of validation. Perhaps the morning newspaper or the radio have held the rumor under control, but when such secure standards of verification are available, it is questionable whether we should speak of rumor at all.

There are, of course, border-line cases where we may not be able to say whether a given tidbit should or should not be called a rumor. But if we define rumor (and we herewith propose that we should), as *a proposition for belief of topical reference, without secure standards of evidence being present*—then it follows from the facts we have presented that

[4] Conveniently summarized in K. Koffka, *Principles of Gestalt Psychology* (New York: Harcourt, Brace and Co., 1935).

[5] F. C. Bartlett, *Remembering* (Cambridge, England: Cambridge University Press, 1932).

rumor will suffer such serious distortion through the embedding process, that *it is never under any circumstances a valid guide for belief or conduct.*

2.

STEREOTYPES AND THE NEWSPAPERS

By S. Stansfeld Sargent

This study deals with propaganda as shown in the effects of emotional stereotypes on newspaper readers, not with the motives which prompt the use of such terms.

Forty terms were selected from the news columns of the *Chicago Tribune.* Twenty of these had been used frequently by the *Tribune* referring to policies that it does not support. The other twenty terms referred to approved policies. (See the two columns in Chart 1.) Ten neutral terms were added to the list, and the fifty items arranged in mixed order.

Six groups of adults were used, totaling 231 subjects: a large P.T.A. meeting, a high school alumni fraternity, beginning and advanced college students, a workers' forum, and a middle-class community forum.

Procedure was as follows: Each subject was given a mimeographed sheet and told that the purpose of the experiment was to get his immediate emotional reactions to various words and phrases. As the experimenter read the terms one at a time, the subject checked L (Like), D (Dislike) or ? (No feeling about it). Two sample words were given before the experiment began. Intervals of about six seconds only were allowed between the words to insure an immediate emotional reaction. Source of the term was not indicated.

Results were tabulated for each group, and for the total of 231 subjects in all groups thrown together. A stereotype score was calculated for each term by subtracting the number of D from the number of L responses, dividing this by the number of persons in the group and multiplying the decimal by 100. The question mark responses are omitted from the formula, but they affect the results by diminishing the size of the numerator and thus reducing the score. Hence the term that arouses the most consistent or standardized emotional response is considered the most stereotyped. (See examples at top of each column in Chart 1.) How far down the list may we go and still speak of the term as stereotyped? Plus or minus 50 is suggested as a good point of demarcation, but the differences exist, of course, in all degrees.

Marked similarity of reactions exists among the different groups. Rank order correlations ran from .81 to .96 between all groups except the workers' forum. The correlations between its responses and the other groups averaged close to .40. The members of this workers' forum showed their atypicality by registering strong favorable reactions to "collectivist economy," "spending program," "radical," "economic innovations" and "assault on business." Their strong negative reactions included "*Tribune*," "taxpayer," "conservative," "capitalism," "private enterprise" and "businessmen." A forum group can hardly represent a good cross section of labor attitudes. Nevertheless the contrast with all other groups (which were essentially middle

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CHART 1

REACTIONS OF 231 SUBJECTS (MEMBERS OF SIX DIFFERENT ADULT GROUPS) TO FORTY TERMS SELECTED FROM THE COLUMNS OF THE *Chicago Tribune*

A. Terms referring to New Deal policies and practices and to organized labor (especially industrial unionism)	Score [a]	B. Terms used to refer to Republican policies and practices, nonstrikers, etc.	Score [a]
Czarism	−84	Cooperation	95
Dictatorship	−84	Freedom	92
Monopolistic practices	−82	Reemployment	88
Domination	−79	Recovery	79
Repressive measures	−65	Right to work	77
Regimentation	−64	Industry	77
Agitator	−63	Business	68
Assault on business	−59	Private initiative	66
Espionage	−57	Loyal workers	59
Court packing	−52	Business community	58
Communist	−49	Free competition	57
Inquisitor	−46	Constitutional principles	53
Radical	−37	Private enterprise	52
CIO partisan	−36	Businessmen	52
Brain Trust	−30	Investment capital	34
Alien	−27	Constitution defender	30
Spending program	−08	Conservative	28
Political regulation	−04	Taxpayer	27
Collectivist economy	03	Capitalism	−01
Economic innovations	12	Resolute Democrat	−22

[a] $\text{Score} = \frac{100 \text{ (number checking L minus number checking D)}}{\text{Total number of subjects}}$

class in character) suggests that class differences in emotional stereotypes deserve further study.

Another interpretation concerns the number of question mark responses found in the various groups. The fewest, an average of 6.85 per subject, was found in the P.T.A. group. The greatest number of question marks was found among the college students, especially the advanced class, which averaged over sixteen per subject. The difference amounts to almost ten responses, having a critical ratio of 6.0. Apparently fathers and mothers are more susceptible to emotion-arousing terms than college students; but this generalization must be discounted somewhat as the environment of the two groups is not identical.

Because the word "*Tribune*" was one of the so-called neutral terms added to the forty chosen items, the reactions of all subjects who marked L for "*Tribune*" (68 in number) were compared with the reactions of those who marked D (105 in number). As might be expected, the former group showed greater dislike for the term "radical," "agitator," "brain trust," "court packing," and "assault on business." Likewise it showed greater liking for "business," "private enterprise," and "the Constitution." The most striking contrast between these *Tribune* likers and *Tribune* dislikers, however, concerns the degree of emotional reaction. Out of a possible twenty unfavorable stereotypes, the group of subjects liking the *Tribune* showed a significant score (minus 50 or more) on seventeen, while the other showed significant scores on

CHART 2

COMPARISON OF EMOTIONAL REACTIONS OF SIXTY COLLEGE STUDENTS TO VARIOUS *Chicago Tribune* TERMS AND TO OTHER TERMS USED IN THE SAME CONNECTION BY THE *New York Times*

Paper	Word or phrase	Score	Difference
CT	Radical	−53	
NYT	Progressive	92	145
CT	Government witch hunting	−38	
NYT	Senate investigation	57	95
CT	Regimentation	−53	
NYT	Regulation	32	85
CT	Communist CIO leader	−68	
NYT	Maritime leader	10	78
CT	Labor agitator	−63	
NYT	Labor organizer	12	75
CT	The dole	−35	
NYT	Home relief	27	62
CT	Farm dictatorship	−55	
NYT	Crop control	−02	53
CT	Loyal workers	60	
NYT	Nonstrikers	08	52
CT	Inquisitor	−22	
NYT	Investigator	23	45
CT	CIO dictator	−72	
NYT	CIO chieftain	−33	39
CT	Alien	−35	
NYT	Foreign	0	35
CT	Mass picketing	−55	
NYT	Picketing	−50	5

only seven. Similarly, out of a possible twenty favorable stereotypes, the Like *Tribune* group showed a significant score on seventeen, and the other group on only six. Furthermore the Like *Tribune* group shows only 7.70 question mark responses per list, compared with 12.02 for those who dislike the paper. The critical ratio of the difference is 3.63 (d/σ_d). It would seem that those who like the *Chicago Tribune* also have pronounced likes and dislikes in political and economic matters.

Another step was taken to obtain a more direct check on the use of emotionalized terms. Twelve terms having possible emotional value were chosen from the *Tribune* news columns, and twelve parallel terms used in the same connection were taken from the *New York Times*. (See Chart 2.) These twenty-four items, in mixed order, along with twenty-six other terms were submitted to sixty college students. The results are shown in Chart 2. The median difference

in stereotype score for these pairs of items is considerable—57.5 points. In each case the *Tribune* term is found to influence subjects in a direction consonant with the political and economic policies of that paper.

3.

PSYCHOLOGICAL GRATIFICATIONS IN DAYTIME RADIO LISTENING

By Herta Herzog

There is a tendency among those concerned with the production of radio programs, and even among those engaged in research, to be primarily interested in studies of audience size and composition or in studies of effects. This is a reasonable attitude once we operate in a well-known field. But preliminary evidence suggests that the gratifications which women derive from daytime serials are so complex and so often unanticipated that we have no guide to fruitful observations unless we study in detail the actual experiences of women listening to these programs.

We turn therefore to a summary of such studies which are concerned not with listener characteristics but with listeners' own reports of their listening experiences.

Listening Gratifications

A preliminary study based on 100 intensive interviews[1] suggests three major types of gratification experienced by listeners to daytime serials.

Some listeners seem to enjoy the serials merely as a means of emotional release. They like "the chance to cry" which the serials provide; they enjoy "the surprises, happy or sad." The opportunity for expressing aggressiveness is also a source of satisfaction. Burdened with their own problems, listeners claim that it "made them feel better to know that other people have troubles, too."

On the one hand, the sorrows of the serial characters are enjoyed as compensation for the listener's own troubles.

> Thus a woman who had a hard time bringing up her two children after her husband's death, mentions the heroine of *Hilltop House* as one of her favorites, feeling that she "ought not to get married ever in order to continue the wonderful work she is doing at the orphanage." This respondent compensates for her own resented fate by wishing a slightly worse one upon her favorite story character: preoccupied by her own husband's death she wants the heroine to have no husband at all and to sacrifice herself for orphan children, if she, the listener, must do so for her own.

On the other hand, in identifying themselves and their admittedly minor problems with the suffering heroes and heroines of the stories, the listeners find an opportunity to magnify their own woes. This is enjoyed if only because it expresses their "superiority" over others who have not had these profound emotional experiences.

A second and commonly recognized form of enjoyment concerns the opportunities for wishful thinking provided in listening. While certain people seem to go all out and "drown" their troubles in listening to the events portrayed in the

From P. F. Lazarsfeld and F. N. Stanton (eds.), *Radio Research, 1942–1943* (New York: Duell, Sloan and Pearce, 1944). Reprinted by permission of the author, the editors, and the publisher.

[1] *Cf.* H. Herzog, "On Borrowed Experience," *Studies in Philosophy and Social Science*, 1941, IX, 65–94.

TABLE 1

PROPORTION OF LISTENERS TO DAYTIME SERIALS WHO ARE BEING HELPED BY LISTENING TO THEM

(Classified by education and relative extent of worrying)

Worries in relation to other women	Proportion of listeners being helped by serials		
	College, percent	High school, percent	Grammar school, percent
More	42	50	52
Less	34	37	44

serials, others use them mainly to fill in gaps of their own life, or to compensate for their own failures through the success pattern of the serials.

Thus a rather happily married woman whose husband happens to be chronically ill, listens to *Vic and Sade* mainly for the "funny episodes," pretending that they happen to herself and her husband. A woman whose daughter has run away from home to marry and whose husband "stays away five nights a week," lists *The Goldbergs* and *The O'Neills* as her favorites, each portraying a happy family life and a successful wife and mother

A third and commonly unsuspected form of gratification concerns the advice obtained from listening to daytime serials. The stories are liked because they "explain things" to the inarticulate listener. Furthermore, they teach the listener appropriate patterns of behavior. "If you listen to these programs and something turns up in your own life, you would know what to do about it" is a typical comment, expressing the readiness of women to use these programs as sources of advice.

DAYTIME SERIALS AS SOURCES OF ADVICE

The observations in this preliminary case survey were so striking that it was decided to test the matter on a larger scale. Therefore, in the summer of 1942, the respondents in the Iowa survey who listen to daytime serials were asked the following question:

Do these programs help you to deal better *with the problems in your own everyday* life?

Yes—No—Never thought about it that way—Don't know—

Of some 2,500 listeners, 41 percent claimed to have been helped and only 28 percent not to have been helped. The remainder held that they had never thought about it that way or that they did not know, or refused to answer the question.

On the basis of numerous tabulations designed to identify the types of women who consider themselves "helped" by listening to radio serials, two conclusions can be drawn. The less formal education a woman has, the more is she likely to consider these programs helpful. This corroborates a previous observation that less-educated women probably have fewer sources from which to learn "how to win friends and influence people" and are therefore more dependent upon daytime serials for this end.

We find also that on all educational levels those women who think they worry more than other people, more frequently find relief in listening to serials than women who say they worry less. Both results are summarized in Table 1. Each figure indicates, for the given class of listeners, the proportion of women

claiming that the serials help them. It will be seen that the figures in the first line (worries more) are always higher than the corresponding figures in the second line (worries less), and that there is an increase from left to right, that is, with decreasing education of the respondents.

The proportion of those who feel helped also increases with the number of stories heard. Whereas among those who listen to one serial only, 32 percent said they had been helped, 50 percent of those who listen to six or more serials claim to have been helped. This is not surprising because we would expect those women who are more ardent listeners to impute beneficial effects to serial dramas.

But these over-all figures do not yet give us a clear idea of what women mean when they talk about such "help." For the respondents in the Iowa survey, we have no additional information. We can, however, draw upon the results of some 150 case studies of serial listeners in New York and Pittsburgh. Interviewers [2] were instructed to obtain complete examples of advice gleaned from daytime serials. They were cautioned to secure accounts of concrete experiences and not rest content with general assertions of aid derived from serials.

Judging from this information, the spheres of influence exerted by the serials are quite diversified. The listeners feel they have been helped by being told how to get along with other people, how to "handle" their husbands or their boy friends, how to "bring up" their children.

I think Papa David helped me to be more cheerful when Fred, my husband, comes home. I feel tired and instead of being grumpy, I keep on the cheerful side. *The Goldbergs* are another story like that. Mr. Goldberg comes home scolding and he never meant it. I sort of understand Fred better because of it. When he starts to shout, I call him Mr. Goldberg. He comes back and calls me Molly. Husbands do not really understand what a wife goes through. These stories have helped me to understand that husbands are like that. If women are tender, they are better off. I often feel that if my sister had had more tenderness she would not be divorced today. I saw a lot of good in that man.

Bess Johnson shows you how to handle children. She handles all ages. Most mothers slap their children. She deprives them of something. That is better. I use what she does with my children.

The listeners feel they have learned how to express themselves in a particular situation.

When Clifford's wife died in childbirth the advice Paul gave him I used for my nephew when his wife died.

They have learned how to accept old age or a son going off to the war.

I like Helen Trent. She is a woman over 35. You never hear of her dyeing her hair! She uses charm and manners to entice men and she does. If she can do it, why can't I? I am fighting old age, and having a terrible time. Sometimes I am tempted to go out and fix my hair. These stories give me courage and help me realize I have to accept it.

In *Woman in White* the brother was going off to war. She reconciled herself, that he was doing something for his country. When I listened it made me feel reconciled about my son—that mine is not the only one. In the story the brother is very attached to the family—he tells them not to worry, that he would be all right and would come back.

They get advice on how to comfort themselves when they are worried.

It helps you to listen to these stories. When Helen Trent has serious trouble she takes it calmly. So you think you'd better be like her and not get upset.

[2] For the interviews we are indebted to Mrs. Clare Marks Horowitz of the Pennsylvania College for Women and to Mrs. Jeannette K. Green of Columbia University's Office of Radio Research.

They are in a position to advise others by referring them to the stories.

I always tell the woman upstairs who wants my advice, to listen to the people on the radio because they are smarter than I am. She is worried because she did not have any education and she figures that if her daughter grows up, she would be so much smarter than she was. I told her to listen to *Aunt Jenny* to learn good English. Also, you can learn refinement from *Our Gal Sunday*. I think if I told her to do something and something would happen. I would feel guilty. If it happens from the story, then it is nobody's fault.

The desire to learn from the programs is further confirmed by the fact that one third of 100 listeners specified problems which they would like to have presented in a serial. A few quotations will serve to illustrate these choices:

When a man's disposition changes suddenly after being married for a long time. He starts gambling and to be unfaithful. What's the explanation?

I should like to know how much a daughter should give her mother from the money she makes. I give everything I earn to my mother. Do I have to?

Whether I should marry if I have to live with my mother-in-law.

A story which would teach people not to put things over.

About religious and racial differences.

Unquestionably then, many listeners turn to the stories for advice and feel they get it. Nonetheless, the matter is not quite so simple as it seems.

A question suggested by the quoted comments concerns the adequacy of the aid and comfort. The woman who has learned to deprive her children of something rather than "to slap them" seems to be substituting one procedure for the other without an understanding of the underlying pedagogical doctrine. It is doubtful whether the relationship between a wife and her husband is put on a sounder and more stable basis when she has learned to realize that "men do not understand what their wives have to go through." One might wonder how much the bereaved nephew appreciated, at his wife's death, the speech his aunt had borrowed from her favorite story.

A second question concerns the extent of the influence. Frequently the advice seems confined to good intentions without any substantial influence on basic attitudes. An example of this may be found in the following remarks of a woman who listens to serials because the people in them are so "wonderful":

They teach you how to be good. I have gone through a lot of suffering but I still can learn from them.

Yet, this same woman, when asked whether she disliked any program, answered:

I don't listen to *The Goldbergs*. Why waste electricity on the Jews?

Obviously, the "goodness" she was "learning" had not reached the point of materially affecting her attitude towards a minority group. In the same context, we may note that the advice derived from a serial is often doled out to other people, to sisters, or neighbors, thus providing the listener with the status of an adviser without its responsibilities.

Thirdly, the women who claim to have profited from the serials frequently think of quite unrealistic situations. Thus, one listener felt she had learned considerable from a story in which the heroine suddenly came into a great deal of money; the story character was concerned with keeping her children from profligate waste. Although the listener felt there was no prospect of ever having so much money herself, nonetheless she considered that this episode offered valuable advice:

It is a good idea to know and to be prepared for what I would do with so much money.

Very likely, the advice obtained from that story served as a substitute for the condition of its applicability. Similarly, the wishful thinking connected with such "potential" advice is brought out in the following account of a young housekeeper:

I learn a lot from these stories. I often figure if anything like that happened to me what I would do. Who knows if I met a crippled man, would I marry him? If he had money I would. In this story (*Life Can Be Beautiful*), he was a lawyer, so it was really quite nice. These stories teach you how things come out all right.

The over-all formula for the help obtained from listening seems to be in terms of "how to take it." This is accomplished in various ways. The *first* of these is outright wishful thinking. The stories "teach" the Panglossian doctrine that "things come out all right." In a less extreme form, a claim on a favorable turn of events is established by the listener's taking a small preliminary step which accords with a pattern established in a serial. This may be illustrated by the following comment of a middle-aged listener:

In Helen Trent the girl Jean is in love with this playwright. She used to be fat and he did not pay any attention to her. . . . I am fat and I got to get thin. That story taught me that it is dangerous to reduce all by yourself. Helen Trent took that girl to a doctor. That's just what I did. I went to the doctor last night. I am going to start the diet next week.

This listener actually saw a doctor about her weight. She postponed starting her diet for "next week." By following the serial's "advice" to this extent, she seems to feel assured of having taken sufficient steps to guarantee herself a result as romantic as that in the serial. (By reducing, Jean, the story character, won the love of a man who had not cared for her before.)

A *second* way in which the listeners are helped to accept their fate is by learning to project blame upon others. Thus one of the previously quoted listeners obtains "adjustment" to her marital problems by finding out that husbands never understand their wives. *Thirdly*, the listeners learn to take things by obtaining a ready-made formula of behavior which simply requires application. References such as "Don't slap your children, but deprive them of something" characterize this type of learning. Listeners, worried about problems confronting them, learn to take things "calmly," not to get "excited" about them. As one person said:

I learned that if anything is the matter, do not dwell on it or you go crazy.

Calmness in the face of crises is certainly a useful attitude. However, it is not always sufficient for a solution of the problems.

These data point to the great social responsibility of those engaged in the writing of daytime serials. There can be no doubt that a large proportion of the listeners take these programs seriously and seek to apply what they hear in them to their own personal lives. Much of this application seems somewhat dubious if measured by the yardstick of real mastery of personal problems. No mass communication can fully safeguard itself against abused application. On the other hand, the argument that the primary purpose of daytime serials is entertainment rather than education does not apply here. The writers of daytime serials must live up to the obligations to which the influence of their creations, however unintended, commits them. Both the obligation and the opportunity for its successful execution seem particularly great in these times of war.

The audience to daytime serials comprises a cross section of almost half of all American women. Thus the radio industry and the Office of War Information seem quite justified in their effort to use

these programs as a vehicle for war messages. We shall have to tell how personal losses should be borne and overcome by work and understanding of higher purposes instead of being submitted to passively as undeserved suffering. We shall have to combat prejudice and wishful thinking by information and the analysis of complex social situations. The future in which colored nations will play a much greater role can be anticipated by realistic handling of race problems. A world in which some form of central planning is likely to remain can be reflected in plots where the role of the individual in the community is constructively treated. The increasing importance of labor can be shown by the introduction of characteristic types. These are the needs and the obligations. Can they be carried through? We cannot know for certain. But there is evidence from other instances that times of emergency favor such change more than times of peace. We live in a world where the ultimate criterion is no longer what we like to do, but what our duty is. If radio gets into the habit of telling this to large numbers of listeners now, it will acquire a tradition which will make it an even more important social instrument after the war.

4.

THE EFFECTS OF PRESENTING "ONE SIDE" VERSUS "BOTH SIDES" IN CHANGING OPINIONS ON A CONTROVERSIAL SUBJECT

By the Information and Education Division, U. S. War Department.

The Problem

In designing Army orientation programs, an issue which was frequently debated by the producers was: When the weight of evidence supports the main thesis being presented, is it more effective to present only the materials supporting the point being made, or is it better to introduce also the arguments of those opposed to the point being made?

The procedure of presenting only the arguments supporting the thesis is often employed on the grounds that when the preponderance of the arguments supports the point being made, presenting opposing arguments or misconceptions merely raises doubts in the minds of the audience. On the other hand, the procedure of presenting the arguments for "both sides" may be supported on grounds of fairness—the right of the members of the audience to have access to all relevant materials in making up their minds. Furthermore, there is reason to expect that audience members already opposed to

The Research Branch of the War Department's Information and Education Division did extensive surveys of soldier opinion throughout the world on a variety of topics as a guide to Army staff planning. In addition to conducting surveys, the Branch carried out a number of experimental studies. Most of these studies were for the purpose of assessing, by controlled experiments, the effectiveness of various programs devised by the Army to improve the knowledge and orientation of soldiers concerning world events and issues of the war. These programs made extensive use of radio and motion pictures. In a forthcoming volume a number of experimental studies will be reported which bear on the effectiveness of these media and techniques.

The present excerpt is from a forthcoming volume by the Experimental Section of the Research Branch on the use of radio transcriptions as a means of introducing discussion sessions on topics relating to our participation in the war. Measurements were made of the effectiveness of these orientation programs in conveying information and influencing opinions.

the point of view being presented may be "rehearsing" their own arguments while the topic is being presented and in any case will be distracted and antagonized by the omission of the arguments on their side. Thus, according to proponents of the two-sided arguments, presentation of the *audience's* arguments at the outset possibly would be expected to produce better reception of the arguments which it is desired to convey.

The present experiment was set up to provide information on the relative effectiveness of these two alternative types of program content, in relation to the variable of men's initial position for or against the position advocated in the program.

Method of Study

1. The Two Programs Used. At the time the experiment was being planned (early in 1945) it was reported that Army morale was being adversely affected by overoptimism about an early end to the war. A directive was issued by the Army to impress upon troops a conception of the magnitude of the job remaining to be done in defeating the Axis. This furnished a topic on which arguments were available on both sides but where the majority of military experts believed the preponderance of evidence supported one side. It was therefore chosen for experiment.

Radio transcriptions were used to present the two programs, primarily because of the simplicity with which they could be prepared in alternative forms. The basic outline of the programs' content was prepared by the Experimental Section of the Research Branch. All materials used were official releases from the Office of War Information and the War Department. The final writing and production of the programs were carried out by the Armed Forces Radio Service.

Both of the two programs compared here were in the form of a commentator's analysis of the Pacific war. The commentator's conclusion was that the job of finishing the war would be tough and that it would take at least two years after V–E day.

"One Side." The major topics included in the program which presented *only* the arguments indicating that the war would be long (hereafter labeled *Program A*) were: distance problems and other logistical difficulties in the Pacific; the resources and stock piles in the Japanese Empire; the size and quality of the main bulk of the Japanese army that we had not yet met in battle; and the determination of the Japanese people. This program ran for about fifteen minutes.

"Both Sides." The other program (*Program B*) ran for about nineteen minutes and presented all of these same difficulties in exactly the same way. The additional four minutes in this latter program were devoted to considering arguments for the other side of the picture—U. S. advantages and Japanese weaknesses such as: our naval victories and superiority; our previous progress despite a two-front war; our ability to concentrate all our forces on Japan after V–E Day; Japan's shipping losses; Japan's manufacturing inferiority; and the future damage to be expected from our expanding air war. These additional points were woven into the context of the rest of the program, each point being discussed where it was relevant.

It should be pointed out that while Program B gave facts on *both sides* of the question, it did not give equal space to both sides, nor did it attempt to compare the case for thinking it would be a long war with the *strongest possible case* for believing it would be an easy victory and a short war. It took exactly the same stand as that taken by Program A—namely, that the war would be difficult and would require at least two years. The difference was that Program B mentioned the opposite arguments (e.g., U. S. advantages) whenever they were relevant. In effect it argued that the job would be difficult, even taking into ac-

count our advantages and the Japanese weaknesses.

2. Design for the Experiment. The general plan of the experiment was to give a preliminary "opinion survey" to determine the men's initial opinions about the Pacific war and then to re-measure their opinions at a later time, after the transcriptions had been played to them in the course of their orientation meetings. In this way the *changes* in their opinions from "before" to "after" could be determined. A control group, which heard *no* transcription, was also surveyed as a means of determining any changes in response that might occur during the time interval due to causes other than the transcriptions—such as the impact of war news from the Pacific.

a. Anonymity of response and avoiding suspicion of "guinea-pigging." It was considered necessary to obtain opinions *anonymously*, and also to measure the effects of the program without awareness on the part of the men that an experiment was in progress. These precautions were dictated by the type of effect being studied—it was felt that if the men either thought their responses were identified by name or if they knew they were being "tested," some men might give "proper" or otherwise distorted answers rather than answers expressing their true opinions in the matter. In the experiment reported here, the methods of achieving this lack of awareness and assurance of anonymity were inherent partly in the measuring instrument and partly in the design and administration of the experiment and will be mentioned as these subjects are discussed. These precautions were taken mainly on *a priori* grounds and they do not indicate that evidence for any tendency to be suspicious was actually found.

b. The measuring instrument. The questionnaire used in the preliminary "survey" (before hearing the transcription) consisted mainly of check-list questions plus a few questions in which men were asked to write in their own answers. The content of questions that formed the measuring instrument *per se* will be indicated later in presenting the results of the study. In addition, the preliminary "survey" contained *background* items for obtaining information about the individual's education, age, etc., and what might be called "camouflage" items—questions dealing with opinions not related to the orientation topic. The latter were not necessary for the experimental measurements *per se* but were used to give scope to the "survey" and prevent a concentration of items dealing with material to be covered in the transcriptions. This was done partly to help make the survey seem realistic to the men but mainly to avoid "sensitizing" them to the topic of the subsequently presented orientation material through placing too much emphasis on it in the survey.

c. "Pretesting." One of the important steps in preparing the items used in questionnaires was what may be termed *"qualitative pretesting"* of the wording and meaning of the questionnaire items. This consisted of face-to-face interviewing of soldiers, with the questions asked orally by the interviewer in some cases or read by the respondent in others. In this way, misinterpretations of the questions and misunderstood words were uncovered and at the same time natural wording and natural categories of response were revealed. In addition to its value in improving the wording of questions, this pretest also served as an important method of helping to determine the men's opinions on the relevant topics so that the arguments and appeals to be used in the programs could be geared to the men's opinions and information. To provide more extensive data for this purpose the interviewing was followed up by the administration of a preliminary questionnaire using a sample of about 200 soldiers. Liberal use of "free-answer" questions was made in this questionnaire in order to get detailed information con-

cerning men's reasons for expecting a long or a short war.

d. Administration of the experiment. For proper administration of the experiments there were three major requirements: presentation of the transcriptions under realistic conditions, preventing the men in the sample from realizing that the experiment was in progress, and getting honest answers in the questionnaires. For realism in presentation, the transcriptions for the experimental groups were incorporated into the training program and scheduled as part of the weekly orientation hour. This not only insured realistic presentation but also helped to avoid indicating that effects of the transcriptions were being tested.

The preliminary "survey" had been presented as being part of a War Department survey "to find out how a cross section of soldiers felt about various subjects connected with the war," with examples being given of previous Research Branch surveys and how they were used. Questionnaires were administered to all the men in a company at once, the men being assembled in mess halls and other convenient buildings for the purpose. The questionnaires were administered by "class leaders" selected and trained for the job from among the enlisted personnel working at the camp. In an introductory explanation of the survey the class leader stressed the importance of the survey and the anonymity of the answers. No camp officers were present at these meetings and the men were assured that the surveys went directly to Washington and that no one at the camp would get a chance to see what they had written.

e. Problems in the administration of the second questionnaire. To prevent suspicion of an "experiment" arising from the administration of two surveys within a short space of time, the second questionnaire differed from the first one both in its form and its announced purpose. Thus the first questionnaire was given as a general War Department "survey," while the second one was given during the orientation meetings to "find out what men thought of the transcriptions" (or, in the control group, "what they thought of their orientation meetings").

The preliminary "survey" was administered during the first week of April, 1945, to eight quartermaster training companies. During the following week eight platoons, one chosen at random from each of the eight companies, heard Program A (which presented only one side) during their individual orientation meetings. Another group of eight platoons, similarly chosen, heard Program B (which presented both arguments). Immediately after the program the men filled out the second questionnaire, ostensibly for the purpose of letting the people who made the programs know what the men thought of it. Included in this second questionnaire, with appropriate transitional questions, were some of the same questions that had been included in the earlier survey, asking the men how they personally sized up the Pacific war. A third group of eight platoons served as the control with no program. They filled out a similar questionnaire during their orientation meeting, which, in addition to asking the same questions on the Pacific war, asked what they thought of their orientation meetings and what they would like in future orientation meetings. For the control group, the latter questions—in lieu of the questions about the transcriptions—were represented to the men as the main "purpose" of the questionnaire.

While 24 platoons were used for this experiment, the units reported at only about 70 percent strength at the preliminary survey and at the orientation meetings. The "shrinkage" was therefore quite large as to number of men present *both* times, and the sample available for "before-after" analysis was consequently small (a total of 625 men,

with 214 in each experimental group and the remaining 197 men in the control group). In view of the rapidly changing picture in the Pacific, however, it was considered inadvisable to repeat the experiment at another camp.

Results

The following results are based on an analysis of the responses of men whose initial survey could be matched with their questionnaire given in the orientation meetings. While all of the questionnaires were anonymous, the "before" and "after" questionnaires of the same individuals could be matched on the basis of answers to such background questions as years of schooling, date of birth, etc.

1. Effects on Opinions of Men Who Initially Estimated a Long War and on Those Who Initially Estimated a Short War. The main question used to evaluate the effectiveness of the two presentation methods was one asking the men for their best guess as to the probable length of the Pacific war after V–E Day. The results of this question were tabulated in terms of changes in estimate of the probable duration of the Pacific war. A change was defined as a difference of one-half year or more between the man's estimate in the earlier survey as compared with his estimate after hearing the program.

The results are analyzed in terms of "*net effect.*" Some men changed to a longer estimate and some changed to a shorter estimate; the "net change" for a group is the proportion changing to a longer estimate minus the number changing to a shorter estimate. However, some changes in each direction also occurred among the men in the control group who heard no program. The latter changes are attributable to the imperfect reliability of the question and also to the fact that, during the one week period between the before and after tests, war news and varying interpretations of this news probably affected the men's opinions to some extent. Therefore, in order to get *net effect* of the program on a given group, the net change among the program men had to be corrected by subtracting from it the net change that occurred among men in the control group.

As was mentioned earlier, one of the arguments against presenting only one side of an issue rests on the anticipated adverse effect upon the individuals opposed to the point being presented. Therefore, the results were analyzed separately for men who were initially "favorable" and those initially "unfavorable" to the stand taken by the programs. The basis for distinguishing these two groups was whether their initial estimate of the length of the war was less than two years, or was two years or more. A two-year estimate was taken as the criterion primarily because this was the minimum estimate given by the commentator in the transcriptions, and thus served to distinguish between those who favored and those who disagreed with his point of view.

The net effects of the two ways of presenting the orientation material are shown below for these two subgroups of men: those initially estimating a war of *two or more years* (the "favorable" group) and those initially estimating a war of less than two years (the "unfavorable" group).

The following chart shows that the *net effects* were different for the two ways of presenting the orientation material depending on the initial stand of the listener. The program giving only one side was more effective for men initially favoring the stand, that is, for the men who agreed with the point of view of the program that the war would take at least two years. On the other hand, the program giving some of the U. S. advantages in addition to the difficulties was more effective for men initially opposed, that is, for men who expected a war of less than two years. In the present sam-

NET EFFECTIVENESS OF PROGRAM A AND PROGRAM B FOR MEN WITH INITIALLY UNFAVORABLE AND MEN WITH INITIALLY FAVORABLE ATTITUDES

Among men whose initial estimate was "*Unfavorable*"
(Estimated a short war)

	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	36%
PROGRAM B (both sides)	48%
Difference: (B – A)	12%

Among men whose initial estimate was "*Favorable*"
(Estimated a long war)

	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	52%
PROGRAM B (both sides)	23%
Difference: (B – A)	–29%

(Percent Favorably Affected by the Program—see Supplementary Tables, Table A, for subgroup N's and details on how the charted figures were computed.)

ple there happened to be about three men with an initially unfavorable attitude to every man with an initially favorable attitude, so that the over-all net effect on the *total* group was almost exactly the same for the two programs.

2. Effects on Opinions of Men with Different Years of Schooling. When the results were broken down according to years of schooling it was found that the program which presented both sides was more effective with better educated men

NET EFFECTIVENESS OF PROGRAM A AND PROGRAM B FOR MEN OF DIFFERENT EDUCATIONAL BACKGROUNDS

Among men who did not graduate from high school

	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	46%
PROGRAM B (both sides)	31%
Difference: (B – A)	–15%

Among men who graduated from high school

	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	35%
PROGRAM B (both sides)	49%
Difference: (B – A)	14%

(See Supplementary Tables, Table B, for detailed computations.)

and the program which presented one side was more effective with less educated men. The results are shown below comparing the effects on men who did not graduate from high school with the effects on high school graduates.[1] This breakdown by education divides the sample into approximately equal halves.

The results on page 571 show that the program giving both sides was *less* effective with the nongraduates but *more* effective with the high school graduates.

3. Effects When Both Education and Initial Estimates Are Considered. The differential effects shown above are for the educational subgroups as a whole, without regard to the differences between men initially favoring and initially opposing the stand taken by the programs within the educational subgroups. An analysis was made of the effects for these further subgroupings within the educational groups. However, this further break divides the total group of men into eight subgroups, some of which are very small and are consequently subject to large sampling errors. This fact should be kept in mind in interpreting the net effects in the table on the next page.

It can be seen that a greater net effect was obtained for the program covering both sides in all of the subgroups except that of the nongraduates who initially expected a war of two or more years. As mentioned above, the results are very unstable because of the small samples in the subgroups. This is particularly true of the subgroups with an initial estimate of two or more years since only about one man in four guessed a war of two or more years in the preliminary survey. However, the difference between the results from the two kinds of program is so large for the nongraduates initially expecting a war of two or more years that even though the number of cases is very small it is very unlikely that a difference this large would be obtained due to sampling error. (The statistical probability based on comparison of percentages for samples of the size used is less than one chance in 100.)

4. Conclusions Suggested Thus Far. The conclusions suggested by the results presented so far in this report may be summarized as follows: Giving the strong points for the "other side" can make an argument more effective at getting across its message, particularly for the better educated men and for the men who are already opposed to the stand taken. This difference in effectiveness, however, is likely to be reversed for the less educated men, and in the extreme case the material giving both sides may have a negative effect on poorly educated men already convinced of the stand taken by a program. (This would seem especially likely if the strong points for the other side had not previously been known to, or considered by, this latter group of men.) From these results it would be expected that the total effect of either kind of program on the group *as a whole* would depend on the group's educational composition and on the initial division of opinion in the group.

5. Men's Evaluation of the Factual Coverage. One factor that should tend to make a presentation that takes into account both sides of an issue more effective than a presentation covering only one side is that the men would believe the former treatment more impartial and authoritative.

In the present study, however, the men as a whole did not consider the factual coverage more complete in the program giving our advantages in addition to the difficulties we face. This is illustrated in the table on page 574.[2]

[1] The "Did Not Graduate" group included those whose schooling was limited to grammar school plus those who entered high school but did not finish. The "Graduated from High School" group included all high school graduates, regardless of whether they went on to college or not.

[2] The N's on which these percentages are based are 214 for Program A and 214 for Program B.

NET EFFECTIVENESS OF PROGRAM A AND PROGRAM B FOR MEN WITH INITIALLY UNFAVORABLE AND MEN WITH INITIALLY FAVORABLE ATTITUDES, SHOWN SEPARATELY FOR MEN WITH DIFFERENT EDUCATIONAL BACKGROUNDS

A. Effects among Men Who Did Not Graduate from High School

Among men whose initial estimate was "*Unfavorable*"
(Estimated a short war)

	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	44%
PROGRAM B (both sides)	51%
Difference: (B − A)	7%

Among men whose initial estimate was "*Favorable*"
(Estimated a long war)

	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	64%
PROGRAM B (both sides)	−3%
Difference: (B − A)	−67%

B. Effects among High School Graduates

Among men whose initial estimate was "*Unfavorable*"
(Estimated a short war)

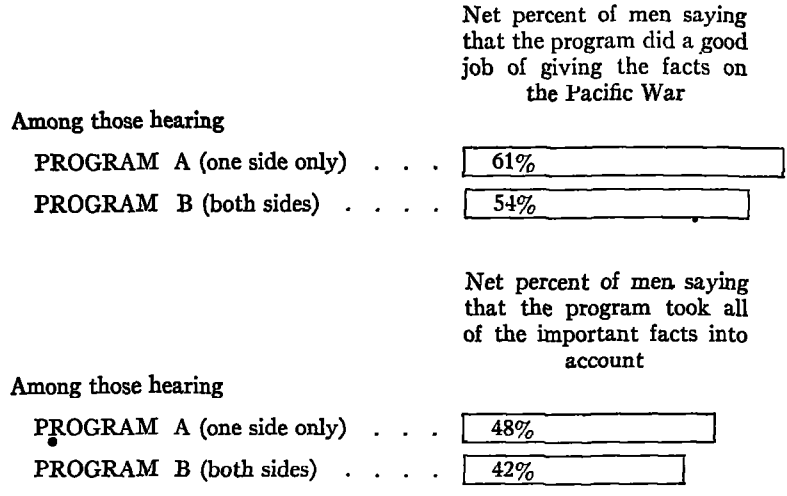
	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	30%
PROGRAM B (both sides)	44%
Difference: (B − A)	14%

Among men whose initial estimate was "*Favorable*"
(Estimated a long war)

	Net percent of men changing to a longer estimate
PROGRAM A (one side only)	39%
PROGRAM B (both sides)	54%
Difference: (B − A)	15%

(See Supplementary Tables, Table C, for detailed computations.)

EVALUATION OF FACTUAL COVERAGE BY MEN HEARING PROGRAM A AND PROGRAM B



It can be seen above that the factual coverage was not considered better in the program giving our advantages as well as the difficulties. If anything the difference was in the opposite direction.

The explanation of this unexpected result apparently lies in the fact that *both* programs omitted any mention of Russia as a factor in the Pacific War, and *this omission seemed more glaring in the presentation that committed itself to covering both sides of the question*. At the time that the Pacific War was chosen as the orientation subject for the experiment it was recognized that a weakness of this topic was that no stand could be taken on the help to be expected from Russia. Thus the difference between the two presentations was necessarily reduced because they *both* failed to mention an important argument on the "other side," namely that Russia might come in. It was not anticipated, however, that this omission would be more noticeable in the program that otherwise covered both sides. But that this happened is suggested by the evidence below:

Included in the program questionnaire was the following "write-in" question:

> "What facts or topics that you think are important to the war with Japan are not mentioned in the program?"

The percentages writing in that aid or possible aid from Russia was not mentioned in the program was 23 for the program giving both sides and only 13 for the program giving just one side. This difference was *even more pronounced among groups that would be expected to be especially sensitive to this omission*, such as men who were initially optimistic about length of the war, men with better education, and men who had expected a great deal of help from Russia in the job against Japan.

6. Separate Analysis of Data for Men Most Likely to Note Omission of Russian Aid. Evidence that omitting to mention help from Russia detracted more from the program giving both sides than from the one-sided program was obtained from a separate analysis of (*a*) the evaluations of the factual coverage, and (*b*) the effects of the program on opinions, *among the men who would seem to be most likely to note the omission of possible aid.* These were the men who, in the preliminary survey, counted on a great deal of help

from Russia and also expected a war of less than two years.[3] The results for the two programs on these men are shown below. For comparison, the results are also shown for the men who expected a war of less than two years but did not count on a great deal of help from Russia.

EVALUATION OF FACTUAL COVERAGE FOR MEN WITH INITIALLY UNFAVORABLE OPINIONS

(i.e., optimistic about length of war)

A. Proportion of men who *say the program did a good job of giving the facts on the Pacific War*

Among men who *counted* on a great deal of Russian help [a]

Among those hearing	Percent saying it did a good job of giving the facts
PROGRAM A (one side only) . . .	53%
PROGRAM B (both sides)	37%
Difference: (B − A)	−16%

Among men who *did not count* on a great deal of Russian help [b]

Among those hearing	Percent saying it did a good job of giving the facts
PROGRAM A (one side only) . . .	56%
PROGRAM B (both sides)	61%
Difference: (B − A)	5%

B. Proportion of men who *say the program took all of the important facts into account*

Among men who *counted* on a great deal of Russian help [a]

Among those hearing	Percent saying it took all important facts into account
PROGRAM A (one side only) . . .	46%
PROGRAM B (both sides)	28%
Difference: (B − A)	−18%

Among men who *did not count* on a great deal of Russian help [b]

Among those hearing	Percent saying it took all important facts into account
PROGRAM A (one side only) . . .	44%
PROGRAM B (both sides)	46%
Difference: (B − A)	2%

[a] N's: 68 for Program A; 71 for Program B.
[b] N's: 91 for Program A; 80 for Program B.

[3] The breakdown according to expected help from Russia was based on a question asking the ... how much help against Japan they expected from our allies and asking those checking "a great deal"

a. Differences in evaluation of factual coverage (among men most likely to note omission of Russian aid). The implication of these results is that the authenticity of Program B (which presented both sides) suffered from the omission of the subject of Russia.

The above results suggest that if the program covering both sides had dealt with the subject of Russia, it might have been considered more complete in its factual coverage by the men as a whole. This implication received corroboration from the fact that in a fairly large-scale pretest of the two programs, conducted at a time when possible aid from Russia was a less important news topic, *the program covering both sides was considered more complete in its factual coverage.* This pretest was conducted on 347 infantry reinforcements in March, 1945, and practically no difference was obtained between the two programs in the percentages of men noting the omission of Russian aid. In the present study the programs were played during the second week of April, less than a week after the Russians announced that they would not renew their nonaggression pact with Japan.

b. Differences in effect on estimates of length of war (among men most likely to note omission of Russian aid). Not only did the omission of Russia affect men's evaluation of the factual coverage in Program B, but it also appeared to reduce the effect of the program on the men's estimates of the length of the war. Evidence on the latter point comes from an analysis of the *net effects* of the programs on opinions of men in the same subgroups as in the preceding chart. The results of this analysis are shown below:

NET EFFECTIVENESS OF PROGRAM A AND PROGRAM B FOR MEN WITH INITIALLY UNFAVORABLE OPINIONS
(i.e., optimistic about length of war)

Among men who *counted* on a great deal of Russian help [a]

Among those hearing	Percent of men changing to a longer estimate
PROGRAM A (one side only) . . .	36%
PROGRAM B (both sides)	43%
Difference: (B − A)	7%

Among men who *did not count* on a great deal of Russian help [b]

Among those hearing	Percent of men changing to a longer estimate
PROGRAM A (one side only) . . .	36%
PROGRAM B (both sides)	52%
Difference: (B − A)	16%

[a] N's 66 for Program A; 71 for Program B.
[b] N's 86 for Program A; 79 for Program B.

to write in the names of the allies from which they expected a great deal of help. In the present sample, 41 percent of the men checked "a great deal" and wrote in "Russia" as one of the allies from which a great deal of help was expected.

These results indicate that among the men for whom the presentation with both sides is most effective (i.e., the men initially holding unfavorable opinions) the advantage of the "both sides" presentation was less among those counting on a great deal of help from Russia than among those not expecting much help. These findings strongly suggest that the effects of the program giving some of the "other side" would have been even greater on those opposed to the stand taken if *all* of the other side could have been covered.

All of the results in this section seem to support one important conclusion, namely, that if a presentation supporting a particular conclusion attempts to take both sides of the issue into account, it must include *all* of the important negative arguments or the presentation may "boomerang" by failing to live up to the expectation of impartiality and completeness. Apparently a one-sided presentation in which the conclusion is stated in advance and the reasons for this conclusion are then given will be accepted as the argument for a given point of view without much loss of authenticity resulting from failure to cover the other side. However, if a presentation commits itself to taking everything into account, either by announcing this in advance or by actually covering parts of each side of the issue, it will seem less authentic than a single-sided presentation if any important facts known to the audience are not included in the discussion, and its effectiveness at changing opinions will be reduced *among those who are most aware of the point omitted.*

Summary

1. Presenting the arguments on both sides of an issue was found to be more effective than giving only the arguments supporting the point being made, in the case of individuals who were *initially opposed* to the point of view being presented.

2. For men who were *already convinced* of the point of view being presented, however, the inclusion of arguments on both sides was less effective for the group as a whole than presenting only the arguments favoring the general position being advocated.

3. Better-educated men were more favorably affected by presentation of both sides; poorly educated men were more affected by the communication which used only supporting arguments.

4. The group for which the presentation giving both sides was *least* effective was the group of poorly educated men who were already convinced of the point of view being advocated.

5. An important incidental finding was that omission of a relevant argument was more noticeable and detracted more from effectiveness in the presentation using arguments on both sides than in the presentation in which only one side was discussed.

NOTE: See following pages for supplementary tables.

SUPPLEMENTARY TABLES

A. Breakdown, by Percent, of Changes in Estimates among Men Initially Favoring and Men Initially Opposing the Stand Taken

	Program A (one side only)		Program B (both sides)		Control No program	
	2 years or more	Less than 2 years	2 years or more	Less than 2 years	2 years or more	Less than 2 years
No change	46	45	56	41	56	65
Revised estimate upward	36	50	16	58	5	22
Revised estimate down	18	5	27	1	39	13
Net change (percent up minus percent down)	18	45	−11	57	−34 [a]	9 [a]
Control net change [a]	−34	9	−34	9		
Net effect (program net minus control)	52	36	23	48		
Number of cases in each subgroup [b]	45	152	55	150	41	140

[a] The net changes in the two subgroups of the *control* represent the familiar "regression" phenomenon due to unreliable answers in the first test. For example, a man initially in the lowest length-of-war category (less than 6 months) must change to a longer estimate if he changes at all. Since the estimates are to a certain extent subject to chance "influences of the moment," the group initially *below average* in estimate contains a predominance of men who change to a longer estimate if they change at all. Conversely, the group initially *above average* is "loaded" with men who change to shorter estimates. The average estimate was less than one and one half years, which accounts for the greater degree of regression in the subgroups above that estimated a war of two or more years.

[b] The numbers of cases given here add to 583 instead of the total of 625 men studied, because the analysis could not include 42 individuals who failed to give estimates of the length of the war in either the "before" or the "after" survey. This applies also to the two following tables.

B. Breakdown, by Percent, of Changes in Estimates among Men with Differing Education

	Nongraduates			High school graduates		
	Program A (one side)	Program B (both sides)	Control	Program A (one side)	Program B (both sides)	Control
No change	40	45	64	51	45	62
Revised estimate upward	54	44	19	40	50	17
Revised estimate down	6	11	17	9	5	21
Net change	48	33	2	31	45	−4
Control net change	2	2		−4	−4	
Net effect (program net minus control)	46	31		35	49	
Number of cases in each subgroup [a]	93	105	104	104	100	77

[a] See footnote [b] to Table A.

C. Breakdown, by Percent, of Changes in Estimates in the Subgroups Separated Both According to Initial Estimate and According to Education

	Nongraduates				High-school graduates			
	2 or more yrs.		Less than 2 yrs.		2 or more yrs.		Less than 2 yrs.	
	Program A (one side)	Program B (both sides)	Program A (one side)	Program B (both sides)	Program A (one side)	Program B (both sides)	Program A (one side)	Program B (both sides)
No change	52	57	35	40	41	56	53	41
Revised estimate upward	39	3	59	60	32	32	43	56
Revised estimate down	9	40	6	—	27	12	4	3
Net change	30	−37	53	60	5	20	39	53
Control net change [a]	−34	−34	9	9	−34	−34	9	9
Net effect	64	−3	44	51	39	54	30	44
Number of cases in each subgroup [b]	23	30	70	75	22	25	82	75

[a] The control net change used above to eliminate the effects of regression is the same as that used in Table A. This procedure assumes that regression was the same at the two educational levels, but it was considered a better estimate than could be obtained from the small separate subgroups of the control. In any case, chief interest is attached to the *differences* between the effects of the two programs; these differences are independent of the estimate of regression used.

[b] See *footnote* [b] to Table A.

XIV

Public Opinion

1.

HOW SURVEYS ARE MADE

By Eleanor E. Maccoby and Robert R. Holt

Surveys of public attitudes and opinions during recent years have attracted an increasingly large audience. The "public opinion polls" now share newspaper space with the most widely read columnists, and during pre-election weeks they become front-page news.

To most people, who know about polls only what they read in the newspapers, the conducting of surveys must appear to be a transparently simple procedure. The questions asked seem obvious enough and the percentages always add to one hundred. They seldom suspect the detailed work which lies behind the neat columns of figures. For many such followers of public opinion the final results are doubtless the only part of the process of surveying that has any interest, but there are others who are not so easily satisfied.

This article is meant for people who are not experts in survey work but whose interest in public opinion includes curiosity as to how surveys are made and, perhaps, speculation in the possibilities of using the polling procedure in their own organizations or communities. It is not intended as a manual of instructions for beginners; no short article could serve such a purpose adequately. Its purpose is to describe briefly the major steps that are followed in conducting interview surveys, and to answer some of the common questions as to the techniques which lie behind survey findings.

Defining the Objectives of the Survey

The first step in a survey, as in any other planned observation, is to define the question which the survey is to answer. The more clearly the objectives of the study are specified, the more likely it is to yield clear-cut results.

Usually the definition of objectives begins with a broad, general statement of the problem and then turns to a listing of all the items of information the survey will gather. The survey director must analyze his problem carefully to make sure that he includes in his study as many of the pertinent aspects of his problem as possible. It is his responsibility to find out as much as he can in this planning stage about the important factors bearing on the subject of the study.

Suppose we consider as an example the problem of conducting a survey on people's attitudes toward taxes. It is necessary to define the problem by specifying what varieties of taxes the survey will cover. Attitudes toward federal taxes may be different from attitudes toward state and local taxes, and the survey may

From A. Campbell (ed.), "Measuring Public Attitudes," *The Journal of Social Issues*, 1946, II, No. 2, 45–57, with revisions by the authors. Reprinted by permission of the authors and Society for the Psychological Study of Social Issues.

deal with all or only some of these. If the survey is to deal with both income taxes and sales taxes, a distinction must be made between them in the detailed plans for the survey. The administration of tax policy would be an important consideration; reactions to the tax forms, dates, and methods of payment should be studied. An effort might be made to find out the extent to which people would be willing to see public services curtailed for the sake of reducing taxes. Full understanding of the attitudes in this area would require data concerning the extent of public information about taxes. Do people know what the tax rates are? Do they know what the money is used for? The survey should also cover the relation, if any, between attitudes toward taxes and other attitudes and personal attributes of the people interviewed. Do attitudes toward taxes differ in different income and education groups? How are they correlated with attitudes toward other governmental activities?

The survey director must consider all these aspects of his problem. It may be that he will not be able to deal with them all, because of limitations of time or money, and he will therefore have to limit the scope of the survey. His goal is to specify what aspects of the subject he will cover, and to anticipate exactly what findings he will want in his final report.

Choosing the Study Design

While most studies require a single survey of one particular group, this is not always the case. Surveys may be designed in a variety of ways, depending on the objectives of the study. It may be desirable for some purposes to survey two contrasting communities or industrial plants and to compare the two sets of results. In studies where it is important to measure changes or trends in opinions or behavior, a group of people may be selected as respondents and this group may be interviewed several times at specified intervals. When studying cause-and-effect relationships it is sometimes possible to use experimental techniques. To study the effects of a certain motion picture on attitudes, for example, two similar groups might be selected, an "experimental" group who would be shown the film and a "control" group who would not. The influence of the picture on the attitudes of the experimental group could then be studied.

Selecting the Sample

As part of the basic planning of the survey, the survey director must define exactly the group to be covered by the survey. If he is studying the opinions of the American people on a certain issue, the group to be studied (the 'universe") will probably be the entire adult population. If he is making a morale survey within a certain factory, the universe might be all the employees in the factory. Or perhaps the survey is to cover only the skilled, semiskilled, and unskilled workers, not the clerical and managerial staff.

When the group to be studied has been decided upon, the next question to be answered is: Can the survey include a contact with each member of the group? In a study of employees' morale, it may be possible to interview every employee. In a nation-wide public opinion survey, however, it is obviously impossible to poll each adult person in the country. More often than not, a survey must be based upon a *sample* of the universe. Some individuals must be selected from the universe in such a way that they will represent all the people in the universe.

The most reliable way to choose the respondents to be included in a sample survey is to use some random method of selection. Selecting at random means using some automatic method of choosing which gives each individual in the group to be studied an equal chance (or at least a *known* chance) of being in the sample.

To take a random sample of the members of an organization, for example, one might take every tenth card in the membership file. To decide which card to take as the first case, one might open a book at random and take the last digit of the page number. Experience in survey work has demonstrated that if, instead of selecting at random, a survey director tries to pick a representative sample by choosing certain people or places that he believes are representative, a biased sample will probably result. When surveys are based on random sampling, the probable size of the sampling error can be computed mathematically. The errors in a sample which has not been selected by random methods cannot be estimated in any precise way.

There are many pitfalls in choosing a random sample, many ways in which bias may creep in and prevent the selection from being truly random. Suppose interviewers have been sent to certain blocks in a city and told to visit every fifth dwelling on each block. In counting dwellings, there is danger that the interviewers will miss alley dwellings, basement apartments, servants' quarters over garages, and other inconspicuous households. It is evident that if this happened the sample would be biased in the direction of having too few people in the lower income groups.

Bias may be created when no attempt is made to include in the sample those people who are hard to find at home. If the interviewers take all their interviews in households where they find someone home the first time they call, it is clear that people who are not home much do not have an equal chance of coming into the sample. It is well known to survey takers that people who stay home a good deal differ as a group from people who do not.

When samples are taken from lists of names there is danger that the list will be incomplete. This was apparently partly responsible for the miscarriage of the *Literary Digest* poll of the 1936 presidential election. The sample used by the *Digest*, purporting to represent all voters, was taken from such sources as lists of telephone subscribers. This meant that people without telephones (on the average from a lower socio-economic level than people with telephones) were not represented adequately. An additional bias was probably introduced by the fact that the poll depended on people's mailing in the post cards which they received. The people who mailed in their cards were probably not comparable to the people who did not.

Bias may also be introduced into a sample by allowing the interviewers freedom in the choice of the people to be interviewed. In some polling operations, interviewers are told the number of interviews to take, and they are told that these interviews must be distributed in certain ways. For example, an interviewer might be instructed to take one half of his interviews with men, the other half with women; one tenth with Negroes, nine tenths with whites; and one fourth of the interviews from each of four income groups. Aside from these restrictions, the interviewer has freedom of choice, and it is evident that he could follow instructions and still interview only "available" people—waitresses, barbers, policemen, people at railway stations, people who sit on their front porches or stroll in the park, and so on. With this procedure, certain groups in the population may be underrepresented.

Whenever sampling is done by a system of random selection, the more cases the sample has, the more likely it is to represent the universe well. The reasoning behind this is as follows: Suppose a survey is being done of opinions about foreign affairs. This is a subject on which people with different amounts of education differ markedly, so it is important to have college graduates, high-school graduates, grade-school graduates, people with some grade school, and people with

no formal education at all. If only three cases were chosen, they obviously could not adequately represent these five educational groups. A sample of forty cases might easily, by chance, contain four college graduates, or it might contain none—there is not a very good chance that the true proportion of college graduates (perhaps 5 percent) would be obtained. The larger the number of cases, however, the better the chances that all the levels of education will be represented in their proper proportions. It might be argued that one should deliberately select the right number of people from each educational level and consider this as a representative group. But it would be representative only with respect to education, and there are many other characteristics which are related to opinions on foreign affairs, some of which would not be known in advance. A large sample randomly selected assures a sample which will be reasonably representative of *all* characteristics of the people in the universe.

When random methods of selection are followed, increasing the number of cases will improve the sample by reducing the sampling error, but mere increase in the number of cases will not correct for a bias in the sample. When a sample is "biased" its errors are not chance errors which tend to cancel each other out but are systematic and create deviations in the same direction. For example, in a survey of income and savings the results would be greatly affected by the inclusion or exclusion of a few millionaires. By chance a sample might contain too many millionaires or too few. If this error were purely a matter of random sampling error, an increase in the number of cases would provide a better chance of getting just the right proportion of millionaires. But suppose millionaires could not be interviewed because the interviewers could not get past the butlers and secretaries, or because the millionaires were out hunting in the Maine woods or tarpon fishing off Florida; then all the errors would operate in the direction of including too few millionaires rather than too many and the sample would be biased. Increasing the number of cases in the sample would not reduce the error, since the same cause of error would affect the new cases and in the same direction.

In deciding how many people will be included in his sample, the survey director is usually influenced by considerations of economy. His purpose is not to use the largest possible sample but rather to use the smallest sample which will give results of acceptable accuracy. Sampling experts have worked out formulae for estimating the sampling error which is involved in samples of different sizes. The survey director chooses, then, a sample size which will have a sampling error small enough for his purposes.

Among the factors which determine the number of cases needed for a sample survey, the following are perhaps the most important:

1. The desired accuracy of the survey results. If the survey director wishes to be reasonably sure that his final figures are accurate within one percent, he must have a larger sample than if he is willing to accept a margin of error of 5 percent.
2. The variability of the characteristic to be measured. It would take more cases to sample for a variable like income, which has a wide range and many different values, than to sample for variables like age or sex.
3. The desired breakdowns of the findings. Fewer cases are needed in a national survey, for example, if the findings are to be used only as national estimates than if they are to be broken down by state or region. In the latter case, it would be necessary to have enough cases in each state or region to represent it separately, while for national figures alone this would not be necessary.

When the objectives of a survey call for a national sample, it is seldom possible

to select respondents by taking, say, every ten thousandth person in the country. Travel expenses for the interviewers would be too great; some method must be adopted to reduce the number of communities in which interviews are taken. Usually this is done by first choosing a sample of counties and then selecting a sample of people to be interviewed within these counties. In selecting the counties where interviews will be taken, the survey director can cut down the sampling error by "stratifying" the sample. This means simply that he will arrange all the counties of the country in order according to some characteristic, (such as percent of Negro population), divide these ordered counties into strata (high, medium, and low), and select sample counties at random within each stratum, thus making sure that a proper proportion of counties with high, medium, and low Negro populations will come into the sample.

The "modes of stratification" which are used are always characteristics which are thought to be related to the subject matter of the survey. It would be possible, for example, to stratify counties according to their average annual rainfall, so that a proper proportion of wet and dry counties would be included in the sample. But, to continue a previous example, if the survey were measuring attitudes toward our foreign policy, the sample would not be improved by this stratification since such attitudes are presumably not related to rainfall. A stratification of the counties according to the average educational level might, however, improve the sample. For if education tends to be related to attitudes toward world affairs, then, by making sure that the sample contains a proper proportion of counties that are high, medium, and low in educational status, the chances are increased of obtaining a proper representation of people of different points of view toward foreign affairs.

Writing the Questionnaire

When the study planning and sample design are completed, the survey director proceeds to write the questionnaire itself. The type of question to be used must depend on the interviewing method which will be employed. For some surveys, the interviewer asks a question and then hands the respondent a card with a series of possible answers listed on it. Following is an example of this type of question:

"Which of these comes closest to expressing what you would like to have the U. S. do after the war?" (July, 1945, *Fortune*)

1. Enter into no alliances, and have as little as possible to do with other countries.
2. Depend only on separate alliances with certain countries.
3. Take an active part in an international organization.
4. Don't know.

The most common procedure, used by Gallup and other polling organizations, is to ask a rather simple question which has a limited number of possible answers; the respondent then answers verbally and the interviewer checks the answer in a box. An example of this type of question is the one used before the 1944 Presidential election:

"If the election were held today, whom would you vote for—Roosevelt or Dewey?"

The interviewer then checks "Roosevelt," "Dewey," or "Don't know."

Sometimes a survey director will choose to use a broader or more "open" question which will have a greater variety of possible answers. For example, questions such as the following may be asked: "What do you think will happen to prices of the things you buy in the next year or so?" Some survey groups ask their interviewers to check the answers to such questions in boxes. For the above question, the interviewer might check "Will go up," "Will go down," or "Don't know." Respondents will give

some answers, of course, which will not fit neatly into the categories provided. If a respondent says "That all depends on how many strikes there are," or "Some prices will go down, but others will stay high," then the interviewer is faced with the problem of which is the most appropriate box to check.

Some survey organizations train their interviewers to encourage full discussion on the part of the respondent. They first ask the respondent an "open" question and then follow this up with supplementary questions such as "Why do you think so?" "Just how do you mean that?" and so on. The respondent's full answer is then written down verbatim, and the answers are grouped into categories later. This type of interviewing is known as "intensive" interviewing. The intensive interviewer usually tries to establish a friendly, conversational relationship with the respondent. The interviewer enters the respondent's house and sits down with him; the ensuing interview commonly takes an hour or so and involves a large number of questions. The polling interviewer, on the other hand, usually asks a limited number of questions while standing at the door, and the interview is completed in a few minutes.

There is considerable discussion in the survey field concerning the merits of intensive interviewing as compared with the polling method, in which the interviewer does not encourage full discussion, but simply checks the respondent's answer in predetermined categories. The intensive interview has certain advantages: it tells something about the intensity with which people's opinions are held, and it provides a great deal of information concerning the reasons people have for their opinions and the reservations and qualifications present in their minds. A survey director finds this information very useful in interpreting his survey findings. There is danger that the answers to a polling question will be misleading. For example, people might be asked whether they think the present administration is doing a good job or a poor job. The group who say they believe it is doing a poor job may be made up of two entirely different groups of people—those who think the administration is doing a poor job because it is taking too large a part in the economic affairs of the nation, and those who are dissatisfied because they believe it is taking too small a part. As Lazarsfeld has pointed out,[1] it is possible to clarify the meaning of the answers to polling-type questions by asking a series of "interlocking" poll questions which bear on the components and implications of the subject being studied. To do this, however, means that a good many questions in the poll questionnaire must be devoted to the study of one opinion; in practice, the pollster often finds himself compelled to cover several topics with a limited number of questions, with the result that the supporting questions which could have been used to clarify opinion about each topic are sacrificed.

Intensive interviewing is slower and far more expensive than polling. It requires more highly trained interviewers, and it involves the time-consuming process of converting the full verbatim answers written out by the interviewers into categories. Then, too, if the interviewers are allowed too much lattitude in following up the respondents' answers with any supplementary questions which seem appropriate in the interview, the answers will not be comparable and cannot be converted into tables; one necessary condition of quantification is that all the respondents shall have been asked the same questions.

Survey organizations currently make it

[1] P. F. Lazarsfeld, "The Controversy over Detailed Interviews—An Offer for Negotiation," *Pub. Op. Quart.*, 1944, VIII, 38–60.

a common practice to combine polling questions with open questions. For example, polling questions which bring out "Yes" and "No" answers for the interviewers to check in boxes may be followed by the question "Why do you think so?", and the interviewer then writes down the respondent's reason in the blank provided. The intensiveness of the interview which the survey director will choose depends on the subject matter of the survey. He will be more likely to feel the need of intensive interviews if the subject matter is complex, and especially if he is investigating a relatively new area of opinion. His choice must also be determined, of course, by whether he has access to a field staff trained to do intensive interviewing and whether his funds are sufficient to permit use of the more expensive method.

In writing his questionnaire, the survey director must give careful attention to the order in which different topics and particular questions are taken up. The opening questions must be such as to interest the respondent and stimulate his cooperation. The sequence of questions must be orderly, and logical transitions must be made from one topic to another. The context in which a question is asked can have the greatest influence on the answers to it. Likewise the order and number of alternatives can affect the results greatly in a question where the respondent chooses one of a set of alternatives as his answer. To take care of this difficulty, interviewers are sometimes instructed to vary the order in which they present alternatives, or sometimes different forms of the questionnaire are prepared, giving the questions in a different order.

The so-called "funnel" arrangement of questions is often useful. In this procedure, a very general question is followed by one in the same area which is somewhat narrower, and this in turn is followed by a more specific question. This technique permits the respondent to answer the general question spontaneously before any specific aspects of the problem have been suggested to him, but nevertheless pins him down later on specific points. Suppose, for example, that a study is being done on consumers' cooperation with the government's food conservation program, and the study calls for a table showing how many people are using less bread than they normally would. People may be asked first: "Are you personally doing anything to conserve food?" and if they say they are doing something, they may then be asked "What are you doing?" The answers to these questions will give evidence on what aspects of the food conservation program are uppermost in people's minds, but some people may fail to mention conservation of bread even though they are actually eating less of it. To get specific information, the survey could proceed to a direct question on whether the respondent was conserving bread, and if necessary, could then include questions on the different ways of saving bread.

The task of writing the questions themselves is a difficult one. The writer's first objective must be to make sure that his question is understood. Its wording must be clear and unambiguous, and the words used must be simple enough so that they will be understood by the least educated of the respondents. There are certain regional variations in the use of words which the writer must keep in mind if his question is not to mean different things in different parts of the country. In addition the writer must avoid referring to particular ideas, policies, recent events, or personalities, unless he has some assurance that the respondents will be familiar with them. It is hardly necessary to point out that, in order to be understood, a question must be reasonably brief. If a question contains two or three long sentences, the respondent will often forget what the first part of the question was before he gives his

answer, so that he actually responds only to the last few words of the question.

Each question should have a single focus. If it contains several ideas, it is impossible to tell what part of the question the respondent's answer refers to. For example, the question "Do you think a man would be wise to put his money into real estate and securities these days?" is poorly worded, for one man might answer "Yes" when he believes that real estate is a good investment and securities a poor investment, while another man's "Yes" might signify approval of securities but not of real estate.

The writer of questions must keep in mind the fact that the use of prestige words or other emotionally-toned words may materially affect the responses to a question.[2] It is well known, for example, that attaching a prestige name such as Roosevelt's to a policy proposed in a question will increase the proportion of respondents who express approval of the policy. Similarly, it is almost certain that more people would say "Yes" to: "Do you think the United States should send food to the starving people in Europe?" than would agree if the word "starving" were omitted.

The survey director must be careful in the use of emotionally toned words, but there are occasions in which he may find it desirable to employ them. If he is studying opinions about sending food to Europe, he may deliberately use the word "starving" because many people in Europe are, in fact, starving, and because the publicity on the food crisis appeals to people on the grounds that they must help starving people. To omit the word, then, might be to underestimate the number who would be willing to share American food under the conditions actually prevailing. Furthermore, the survey director sometimes finds it desirable to include an emotionally toned question with the specific purpose of finding out how many people hold their opinions so firmly that they cannot be swayed by devices of this kind.

The question of the effect of emotional "loading" on the answers to a question leads to the more general problem of bias in questions. The point is often raised: Do the answers obtained in a survey represent the "true" attitudes which people have, or have the attitudes been distorted by a "leading" question? In survey research, every attitude must be studied through the answers to questions, and no answer is free from the influence carried by the wording of the question which was used. Every question is "leading," in the sense that it at least specifies the subject matter about which the respondent is being asked to talk.

For these reasons it is important that each survey finding be interpreted in the light of the particular question which was used. Findings must not be loosely generalized to cover whole areas of opinion. Particularly when a study deals with attitudes which are complex, it is important to ask a battery of questions bearing upon different aspects of the problem, so as to achieve a broad base for interpreting the findings.

Although the problems of question-wording need to be emphasized, the survey director in writing his questionnaire can take comfort from the fact that in many cases small differences in question-wording produce relatively little change in public response. Especially when the questions are about facts which are well known to the respondents, it is surprisingly difficult to affect the answers much by the context, order or the wording of the questions.

Pretesting the Questionnaire

It is important to give every question a test run before using it. Often questions which appear satisfactory when they are

[2] H. Cantril, *Gauging Public Opinion* (Princeton: Princeton University Press, 1944), ch. 2.

written turn out to be too difficult or ambiguous, or they unexpectedly set off irrelevant trains of thought on the part of the respondents. Questions can be tested for defects of this sort by trying them out on a representative group of people. The answers given on the pretest are taken down in full, and the respondents are asked to explain what they mean by their answers. This procedure enables the survey director to detect questions which are being misunderstood. Often several forms of a question must be tried out before the best wording is found. In the pretest, variations in the order of questions may also be tried out, until a smooth sequence is achieved.

The pretest permits the survey director to check the answers he is getting against the objectives of the survey, to see whether the kind of information being assembled will solve the problems that underlie the survey. Questions must be discarded if it is found that they merely sound interesting but do not contribute anything to the objectives.

Administering the Survey

The survey director must make sure that his interviewers are well trained before they begin work, and arrange for their supervision throughout the interviewing process. Poor interviewing can ruin a survey even though the planning and questionnaire construction have been well done.

The caliber of interviewers needed to do the job depends, of course, on the complexity of the subject, whether polling or open questions are used, and on the amount of freedom which the interviewers will be allowed in the interviewing situation. A certain amount of judgment on the part of the interviewer is *always* required. Respondents frequently make replies which are not answers to the questions at all. In these cases the interviewer must recognize this and repeat the question. Interviewing can never be completely mechanical, if for no other reason than that the interviewer must learn ways to gain the cooperation of the respondent before he can begin the formal interview. For intensive interviewing, in which the interviewer is allowed to adapt his questions to the individual case to some extent, a high degree of skill and training is required. For most surveys interviewers must be personable, intelligent, and tactful.

Perhaps the most important basic principle an interviewing staff must be taught is not to influence the answers of the people being interviewed. This means that they must learn to avoid expressing disapproval or approval of anything the respondent says. When they have some latitude in the rewording of questions they must ask them in a nondirective way. For example, it should become habitual to ask "Are you working now?" instead of "You're not working now, are you?" Similarly, in using open questions in which a respondent gives reasons for his opinion, the interviewer must learn how to stimulate discussion without slanting it. He may try to get the person to express himself more fully by the use of such questions as "Why do you think so?" and "Just how do you mean that?" but must avoid suggestive questions such as: "Is that because of the high cost of living?"

The quality of a survey can always be improved by devoting a good deal of attention to training the interviewers on the specific subject matter of the survey. There are almost always certain terms which need to be very clearly defined in the interviewers' minds. For example, if an interviewer must check whether or not the respondent is employed, he must learn to know how to classify people who are employed part time. If he is to include only farmers in the survey, he must have the term "farmer" defined so that he will know whether or not to talk to nurserymen, seasonal farm laborers, small farmers who work part time in the city, and so on. Usually, an instruction

booklet is written which explains in detail all the concepts in the survey and tells the interviewer how to handle borderline cases.

Analyzing the Results

When the interview schedules have been filled out and sent in to a central office, the survey director must tabulate the answers in some way so that the survey results will be summarized and easily understood. The simplest way would be to go through the schedules and tally the answers to each question, so that a count would be obtained. This system is not very convenient for comparisons of groups within the sample, however. To find out how men compare with women on a certain question, it would be necessary to divide the schedules into two groups for men and women, and tally separately. If a count by income groups were desired, a new grouping of the schedules and a new tally would be required.

For large-scale operations where internal comparisons will be needed, it is usually found to be most convenient in the long run to record the answers on punch-cards. Different answers are numbered (or "coded"); each respondent has a separate card, and on this card are punched the numbers which represent his answers to all the questions. After the punching has been done, the process of counting the different answers is greatly simplified, for the sorting and counting machines will sort the cards into any desired groups and count the answers automatically.

Coding is a fairly simple job when the respondent has been presented with a group of alternatives from which he must choose; each of the alternatives can be given a number, and the cards may be punched immediately from the questionnaires which have been filled out. When full narrative answers are given to open questions, however, coding is more difficult. Suppose, for example, that people have been asked to give their reasons for their opinions on a certain issue. A great variety of reasons will be given, and the reasons will be worded in many different ways. These reasons must be grouped into a limited number of categories, and each category must be numbered for purposes of punching on the cards.

It is the responsibility of the survey director to present his findings in such a way as to prevent unsophisticated readers from coming to unjustified conclusions. The problem of misinterpretation of findings very often arises when two percentages are being compared, as in the table below (which does not represent actual survey findings, but is included here only for illustrative purposes):

Attitude toward continuation of price ceilings:	March, 1945	March, 1946
Favorable	68%	74%
Unfavorable	25%	23%
Don't know	7%	3%
	100%	100%

The question is, has there been a real change in attitudes toward price ceilings? Assume for the moment that the survey reporting these findings had a small sample with a sampling error of five percentage points. Under these circumstances, it is quite possible that the true percentage favoring continuation of price ceilings during the two years is, say, 72 percent, that there has been no change in this percentage, but that the two figures which were obtained differed from 72 percent because of random sampling error. With this size sample, a larger increase in the number favorable to continuation of ceilings would be needed before one could feel confident that a real change in sentiment had occurred. On the other hand, if the survey were based on a large number of cases, and had a sampling error of only one percentage point, the difference between

the percentages shown above could be relied on as showing a real difference, not just a chance one. There are statistical formulae by which the survey director can compute the probable range of error of his percentages, and he must test his differences for reliability before presenting them in his report.

In presenting his findings, it is also the responsibility of the director to caution his readers against generalizing the findings to a different population from the one measured by the survey. If the survey is based upon a sample of midwestern farmers, this fact should be emphasized, so that the reader will not assume that the results apply to all the farmers of the nation.

As has been pointed out earlier, each answer must be interpreted in the light of the particular question asked. Answers to one question cannot be taken to represent attitudes toward other aspects of a broad field of attitudes. For example, if most people say Britain ought to pay for the food which we send to her, it should not be concluded that the majority would recommend withholding food if Britain cannot pay. The survey director must not only avoid drawing unwarranted conclusions himself, but he must caution his readers against doing so. He cannot, of course, prevent misuse of the findings by unscrupulous readers, but he can minimize their misuse by well-intentioned people who will avoid pitfalls if they are only pointed out.

Conclusion

The preceding pages outline the steps which are followed in conducting public-opinion surveys. The reader may conclude from this description that making a survey is a very complicated business indeed. So it is, and even more so than indicated if one is dealing with a large-scale study of a complex issue on which opinion is confused and contradictory. However, the many precautions and special techniques derive from very simple principles; they are the rules of scientific method which underlie all careful attempts to gather facts reliably and interpret them validly. In its essence, a sample survey is merely a formalized procedure for making observations. It is a device for recording items of information in a systematic way, while eliminating the most common errors of bias, insufficient evidence, and the disregard of negative cases.

For the nonprofessional student of public opinion, it is not important to learn the detailed methodology which has developed in the surveying field. It is important, however, for him to understand the basic principles of the survey process, so that he may evaluate critically the survey findings which he encounters, and seek sound advice if he should desire to utilize the method.

2.

PUBLIC OPINION IN FLUX

By Hadley Cantril

John Adams once wrote that "public information cannot keep pace with facts." What was true in the early nineteenth century is not so true today. Our country is for the first time in a war during a period when the development of reporting and communicational facilities makes it possible for nearly everyone to

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keep pace with the facts. At least 90 percent of us either have radios or read daily newspapers.

This familiar situation is more revolutionary than we may realize. Among other things, it means that public opinion in our democracy has become sensitized to events. We take it for granted that we shall be widely and instantaneously informed. And we take it for granted that the opinions we hold or evolve are important—for us and for the country of which we are a part. We, the people, feel and know that we have become more significant than ever before, with the narrowing of the barrier that separates "us" and our range of experiences from our elected representatives and their range of experiences.

This is also the first critical period in our nation's history when it has been possible to determine rapidly what opinion is—a possibility Lincoln craved when he said just before the Civil War, "What I want is to get done what the people desire to have done, and the question for me is how to find that out exactly." The social scientist is, therefore, at last able to examine systematically the effect of events on a sensitive public. At the present time, data are being gathered more rapidly than they can be exhaustively analyzed. But the flux of American opinion since the outbreak of the war in Europe can at least be outlined.[1]

The Issues Change

Under present conditions it is even more difficult than usual for us to look at the recent past with any perspective. Issues have changed with the march of events. We can recapture some impression of the war issues we faced at different stages of the conflict if we sample the answers to questions asked at six scattered intervals.

1. Just before the Outbreak of Hostilities in Europe. In the fall of 1938 most of us thought England and France had made a mistake when they gave in to Germany's Sudeten demands. We also thought at that time that the Munich agreement had increased the likelihood of a general European war. But in the bright summer of 1939 we refused to believe that the squabble over the Polish Corridor would cause a war, almost two thirds of us saying there would be no major war in Europe during the next year. At the same time, however, the overwhelming majority of us who had opinions thought Hitler's claims to the Corridor were not justified.

The chief issue at that time was *whether or not we should sell war materials to England and France.* When we were asked what we *should* do if war broke out between England and France on one side and Germany and Italy on the other, we were about evenly divided on the question of selling food and war supplies to the democracies. Two thirds of us believed that if we did sell war materials to England and France there would be little or no chance of our staying out of the war. When asked what we probably *would* do if a war broke out, about one third of us thought we would remain neutral, one fourth of us believed we would send troops to Europe, and almost half of us thought we would send war

[1] The research of the Office of Public Opinion Research is financed by a foundation grant which makes it possible to gather information on sample populations and to analyze this information systematically. The writer is particularly indebted to Dr. George Gallup, director of the American Institute of Public Opinion, who has permitted this Office to reproduce all Institute data for purposes of social research. The polling methods used by this Office are comparable to those used by the Institute. The data included in this article have been gathered either by the Institute or by this Office. The complete results of the Gallup, Fortune, and British Institute polls are published each quarter in the *Public Opinion Quarterly.* This article was written during the week of December 8, 1941. The latest figures it was possible to include are those based on the last ballot sent out before December 7, 1941.

materials but no troops. When asked what side we wanted to see win if war should break out, 14 percent of us had no opinion, 84 percent of us voted for England and France, 2 percent for Germany.

2. The First Two Weeks after the Outbreak of the European War. During this period we harbored a complacent optimism. We wanted to watch and wait. The issue was still whether or not to help England and France by selling supplies. The great majority of us expected England and France to win the war; half of us believed the war would last one year or less. Slightly over half of us thought this country should sell supplies to the democracies, but if we did sell supplies, over 90 percent of us thought we should be paid in cash. Almost half of us with opinions said at that time that if it looked as though England and France would be defeated in the next few months, we should declare war on Germany and send our troops abroad. But as further events showed, this opinion seemed based more on a remote sense of duty than on any sense of probable urgency.

3. Month following French Armistice. We were aroused from our complacency with a horrified shock by the lightning successes of the German Army in the spring of 1940. Whereas fewer than half of us had thought we would be personally affected by a German victory before the conquest of France, by now two thirds of us thought we would be affected. Our reaction was to turn our attention to our own defense. Approximately three fourths of us were now saying that all able bodied men should serve one year in the Army and that the National Guard should be called up for training. Most of us thought our defense production was inadequate.

Things looked dark on the Continent. We were not so sure of a British victory. The majority of us said it was more important for us to stay out of war than to help Britain. A majority of us were not in favor of sending food to Britain in our own ships. A majority of us felt we should try to have friendly trade and diplomatic relations with Germany if she won the war. The issue now was *whether or not we should give up our neutrality to help the British.*

4. Midfall 1940. By late October, after the British demonstrated their capacity for resistance and after it became clear that the foreign policy of the Roosevelt Administration remained firmly set against appeasement and withdrawal, the question facing most people was *whether or not we should resist Hitler by aid to Britain short of war.* The emphasis shifted from a program of passive aid to Britain to a program of more active resistance to Nazi Germany. About half of us were now willing to let England borrow money to buy food and war supplies from this country. Over half of us were willing to send more planes to England, even though this might delay our own national defense program. Forty percent of us with opinions were in favor of changing the Neutrality Law to permit American ships to carry war supplies to England.

5. Late Spring 1941. After the Balkan invasion the issue was *whether or not to resist Hitler at any cost.* The answers to some questions during this period are shown in Table 1 Over half of us with opinions favored convoying ships to Britain. Over two thirds of us approved the recent passage of the Lend-Lease Act.

Table 1 shows how opinion varies when questions are stated under different contingencies, interventionist opinion vacillating from 78 to 8 percent. It clearly indicates, however, that insofar as general objectives were concerned, two thirds of us seemed definitely agreed that we should follow through with our aim of defeating Nazi Germany, even though this program seemed likely to involve us in war.

TABLE I

SOME OPINIONS HELD DURING THE SPRING AND SUMMER OF 1941 AND THE VARIATIONS OF THESE OPINIONS WITH THE CONTINGENCIES INVOLVED

So far as you, personally, are concerned, do you think the U. S. has gone too far in helping Britain, or not far enough?	"About right" and "Not far enough" 78 percent June 24, 1941
Some people say that if the U. S. goes on helping England, Germany may start a war against our country. Do you think we should continue to help England even if we run this risk?	"Yes" 76 percent May 6, 1941
If it appears certain to you that Britain will be defeated unless we use part of our navy to protect ships going to Britain, would you favor or oppose such convoys?	"Favor" 73 percent May 6, 1941
Would you prefer to have the U. S go into the war rather than see Britain surrender to Germany?	"Yes" 61 percent May 6, 1941
Which of these two things do you think is more important for the U. S. to try to do—to keep out of war ourselves, or to help Britain even at the risk of getting into war?	"Help Britain" 58 percent May 29, 1941
Do you think the U. S. navy should be used to convoy ships carrying war materials to Britain?	"Yes" 56 percent June 24, 1941
If Roosevelt and our leading military experts say that Britain will be defeated unless we go into the war in the near future, would you favor, or oppose going into the war within a few days?	"Favor" 51 percent May 20, 1941
If you were asked to vote today on the question of the U. S. entering the war now against Germany and Italy, how would you vote—to go into the war now or to stay out of the war?	"Go in" 22 percent June 24, 1941
Should the U. S. enter the war now?	"Yes" 18 percent Sept. 17, 1941
Should the U. S. go into the war now and send an army to Europe?	"Yes" 8 percent Sept. 17, 1941

6. Just before Declaration of War. By late November 1941 the question seemed to be *when will we fight?* Over 80 percent of us thought we would get into the war in Europe; over two thirds of us with opinions thought we would soon be at war with Japan. Seventy percent of us said that if our present leaders and military advisers believed the only way to defeat Germany was for this country to go into the war, then we should go in. Approximately the same number thought it was more important to defeat Germany than to stay out of war. Almost a third of us now said we would vote to go to war against Germany if we had a chance to vote. Furthermore, we had a growing confidence in the armed forces of our

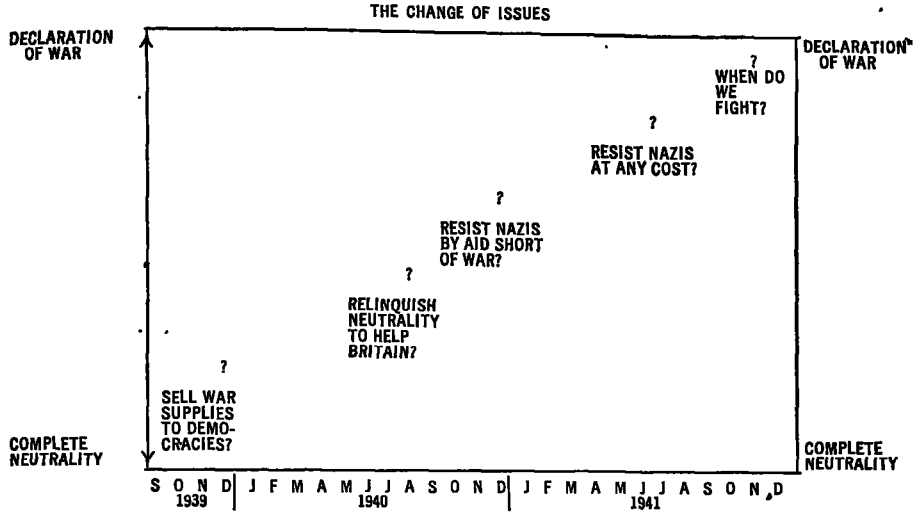


FIG. 1. How public opinion stepped to war.

side. Over four fifths of us said Germany would lose the war. Only 5 percent thought Germany would win. Of the great majority of us who thought Germany would lose the war, over two thirds believed Germany would be brought to her knees only after our own Army, Navy, and air force had joined the fight. We were practically unanimous in saying that we could beat Japan. Eighty percent

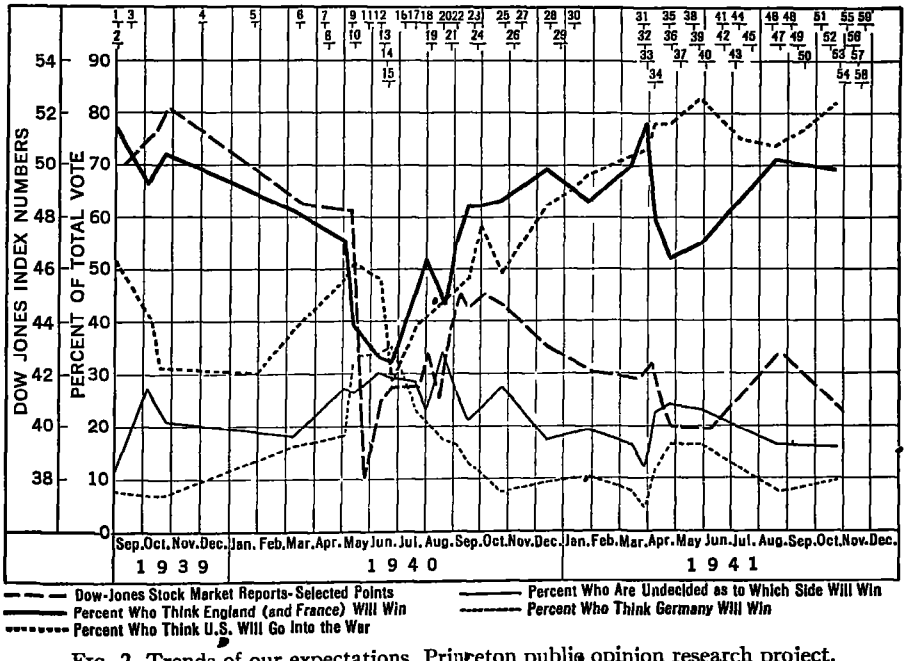


FIG. 2. Trends of our expectations. Princeton public opinion research project.

of us were sure our Navy could beat the Japanese Navy.

This change of issues through time, leading step by step from complete neutrality to a declaration of war, is diagramed roughly in Figure 1.

Trends of Opinion

Since the social context changes so rapidly with events, questions that make sense one week may be meaningless the next. It is therefore difficult to frame many questions which can be repeated over a considerable period of time for trend purposes. But some questions have been appropriate since the beginning of the war in Europe, and others have been repeated for shorter intervals. Some of these trends of opinion are shown in Figures 2, 3, and 4.[2]

In general, these diagrams tell their own dramatic story. However, a few observations are noteworthy.

1. The ups and downs in the diagrams especially Figure 2, show beyond any shadow of doubt that public opinion is sensitive to events.

2. The curve most sensitive to the course of events is that indicating which side people think will win the war. Her wishes are most closely related to opinion. Also, the average man has little solid and long-time strategic information on which to base his judgments. When separate trend curves of expectation are made by economic class, there i

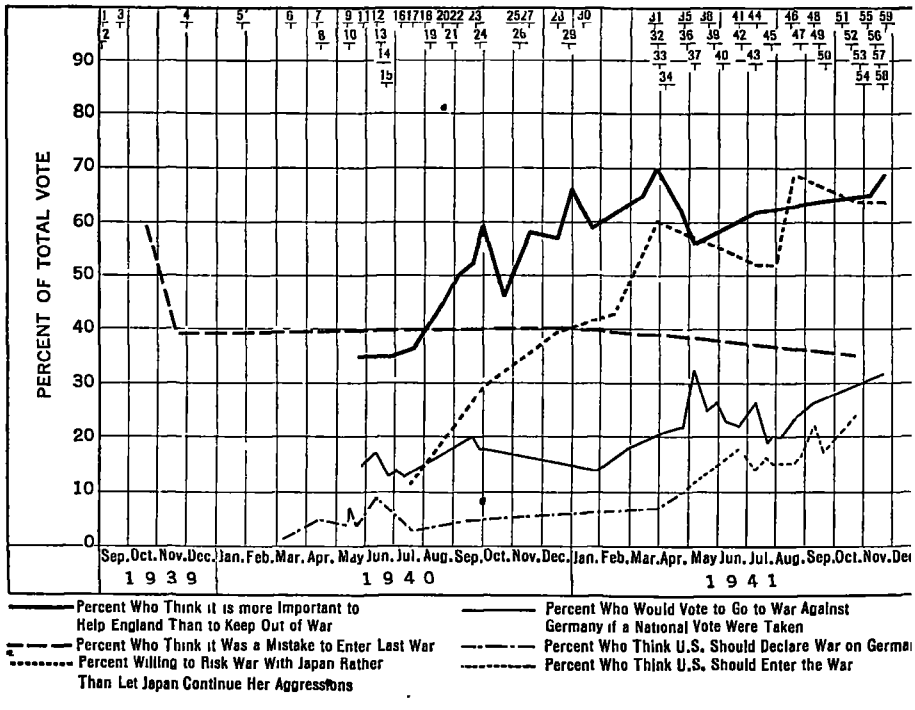


Fig. 3. Some trends on policy, Princeton public opinion research project.

[2] Each point in the diagrams is based on a representative cross section of the total population. Th dates indicated by the points are the dates on which ballots were sent out. The opinion represente therefore, is opinion for the subsequent ten days. The numbers at the tops of the diagrams refer t events listed in the Key. Figures 2 and 3 were prepared by Fred Anderegg, all others by Frederic Williams.

clear indication that persons of the upper income groups are more vacillating in their opinions than persons in the low income group. The relationship between the curve representing those who think England will win and the unadjusted Dow-Jones Stock Index is close but not surprising. Again, if upper income people are separated out, their expectations are found to approximate more closely the trends in the Dow-Jones Index.

3. During the early period of the "phony" war, most Americans felt that we would not become involved. When hostilities began, however, more people thought we would be drawn in, but this expectation suddenly dropped when it seemed too late to help. Since late summer 1940, the number predicting our entrance had steadily risen.

KEY TO EVENTS NOTED ON FIGURES 1, 2, AND, 3

No. on Fig.	Date	Events
		1939
1.	AUG. 31.	GERMANY INVADES POLAND.
2.	SEPT. 1.	"ATHENIA" SUNK.
3.	" 17.	RUSSIA INVADES POLAND.
4.	NOV. 30.	RUSSIA INVADES FINLAND.
		1940
5.	JAN. 26.	TREATY OF COMMERCE BETWEEN JAPAN AND U. S. DECLARED LAPSED.
6.	MAR. 12.	FINN-SOVIET PEACE TREATY.
7.	APR. 9.	GERMANY INVADES NORWAY.
8.	" 12.	HULL STATES THAT U. S. WILL PROTECT *status quo* IN DUTCH EAST INDIES.
9.	MAY 10.	GERMANY INVADES LOW COUNTRIES.
10.	" 13.	CHURCHILL APPOINTED PRIME MINISTER.
11.	" 28.	NATIONAL DEFENSE COMMISSION APPOINTED.
12.	JUNE 10.	ITALY ENTERS THE WAR AND IS DENOUNCED BY ROOSEVELT.
13.	" 15.	ROOSEVELT RENOMINATED FOR PRESIDENT.
14.	" 17.	FRENCH ASK ARMISTICE.
15.	" 18.	CANADA DECLARES A NATIONAL EMERGENCY.
16.	JULY —.	MASS AIR RAIDS ON BRITAIN BEGIN.
17.	" 17.	ENGLAND CLOSED BURMA ROAD FOR THREE MONTHS.
18.	" 30.	PAN-AMERICAN CONFERENCE AT HAVANA.
19.	AUG. —.	BRITAIN WITHDRAWS TROOPS FROM CHINA.
20.	" 18.	JOINT BOARD OF DEFENSE ERECTED BY CANADA AND U. S.
21.	" 28.	SELECTIVE SERVICE BILL PASSED.
22.	SEPT. 3.	CONGRESS INFORMED OF "DESTROYER DEAL."
23.	" 23.	BRITISH AND FRENCH UNDER DE GAULLE ATTEMPT TO CAPTURE DAKAR.
24.	" 27.	GERMAN-ITALIAN-JAPANESE PACT.
25.	OCT. 28.	ITALY INVADES GREECE.
26.	NOV. 5.	ROOSEVELT ELECTED FOR THIRD TERM.
27.	" 14.	COVENTRY DEMOLISHED.
28.	DEC. 15.	BRITISH DRIVE INTO LIBYA.
29.	" 28.	ROOSEVELT'S FIRESIDE TALK.
		1941
30.	JAN. 11.	LEND-LEASE BILL PROPOSED IN CONGRESS.
31.	MAR. 27.	SERBIAN COUP D'ÉTAT IN YUGOSLAVIA.
32.	" 29.	BRITISH DEFEAT ITALIAN NAVY.
33.	" 30.	U. S. SEIZES AXIS SHIPS.
34.	APR. 6.	GERMANY INVADES YUGOSLAVIA AND GREECE.
35.	" 24.	CONVOYS INDICATED BY KNOX AND HULL.
36.	" 27.	FALL OF ATHENS.
37.	MAY 7.	HESS INVADES ENGLAND.

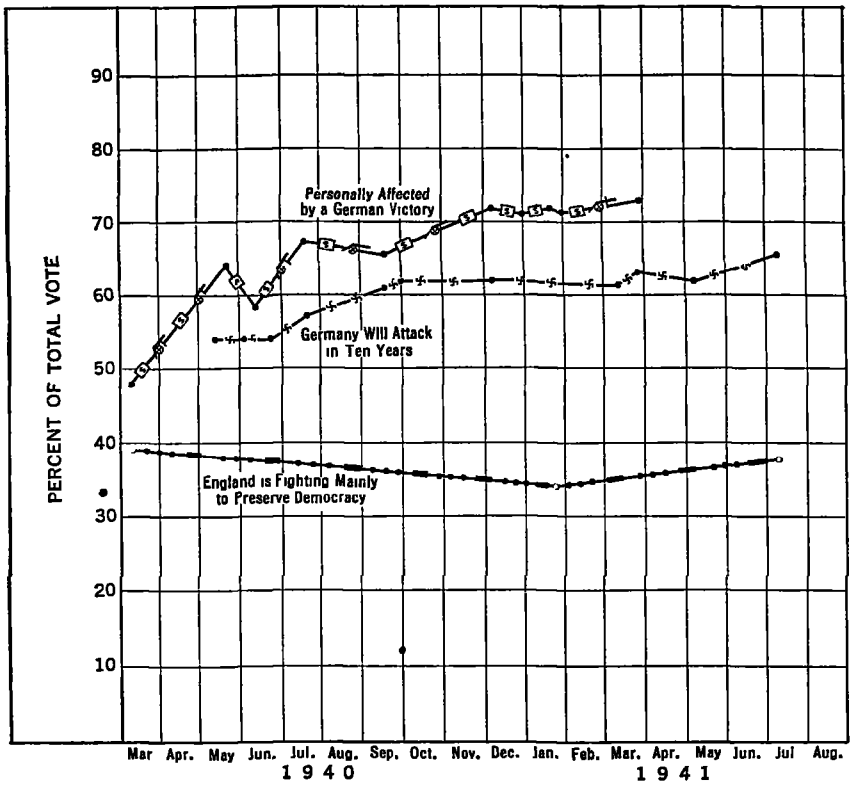


FIG 4. Trends on implications of a German victory and England's war aim.

No on Fig	Date		Events
38	MAY	20	GERMANY INVADES CRETE.
39	"	27	ROOSEVELT'S FIRESIDE CHAT.
40	JUNE	4	BRITISH INVADE SYRIA
41	"	21	ROOSEVELT PROTESTS "ROBIN MOOR" TO CONGRESS AND GERMANY
42	"	22	GERMANY DECLARES WAR ON RUSSIA.
43	JULY	6	U S OCCUPIES ICELAND
44	"	8	FRENCH ASK ARMISTICE IN SYRIA
45	"	24	JAPAN SEIZES BASES IN FRENCH INDO CHINA
46	AUG	14	ROOSEVELT AND CHURCHILL FORMULATE WAR AND PEACE OBJECTIVES
47	"	24	RUSSIA AND BRITISH ESTABLISH SUPPLY ROUTE THROUGH IRAN
48	SEPT	5	"GREER" INCIDENT
49	"	11	ROOSEVELT ORDERS NAVY TO SHOOT FIRST
50	"	20	AMERICAN LEGION CONVENTION SUPPORTS PRESIDENT'S POLICY.
51	OCT	7	GERMANY DRIVES ON MOSCOW.
52	"	17	"KEARNY" INCIDENT
53	"	27	ROOSEVELT DECLARES SHOOTING HAS BEGUN.
54	"	31	"REUBEN JAMES" IS SUNK
55	NOV	4	ELECTION DAY
56	"	12	CIO LEADERS RESIGN FROM NATIONAL DEFENSE MEDIATION BOARD.
57	"	16	SPECIAL JAPANESE ENVOY ARRIVES IN WASHINGTON.
58	"	20	BRITISH ATTACK AXIS IN LIBYA
59.	"	25	U S TAKES OVER SURINAM (DUTCH GUIANA).

4. A close relationship between our desire to help Britain and our expectation of a British victory is seen by comparing Figures 2 and 3. We do not like to bet on a loser, even if he is a friend.

5. The American people easily decided to resist Japanese aggressions. There have been no signs of appeasement on the part of public opinion.

6. The higher number of people (shown in Figure 3) who would "vote to go to war against Germany" than who thought we "should enter the war" was due chiefly to the fact that people were more willing to go to war if they felt they could personally play some part in making the decision.

7. The American people did not change their opinion concerning Britain's war aims. Approximately a third of them believed at the beginning of the war that Britain was fighting to preserve democracy. This figure remained constant.

8. The diagrams show the effect of certain events. For example:

(*a*) The signing of the German-Italian-Japanese Pact of late September 1940 did not scare Americans away from their policy of aid to Britain at the risk of war.

(*b*) During October 1940, when both major Presidential candidates were minimizing the probability of actual intervention, there was over a 10 percent drop of those who favored aid to Britain at the risk of war and also of those who thought we would become involved in the war.

(*c*) The President's fireside talk of December 29, 1940, increased by about 8 percent the number who thought it was more important to help England at the risk of war than to keep out of war. If this talk had been sustained by some action, the rise in opinion might easily have held.

(*d*) The effect of Russia's entrance into the war was to lift American optimism concerning the war's outcome and to decrease slightly the number of people who thought we would enter the war. After Russia was invaded, there was a slight increase of those who thought it was more important to aid Britain than to stay out of war. Hitler's talk of his Holy War against Communism made no impression on the American people.

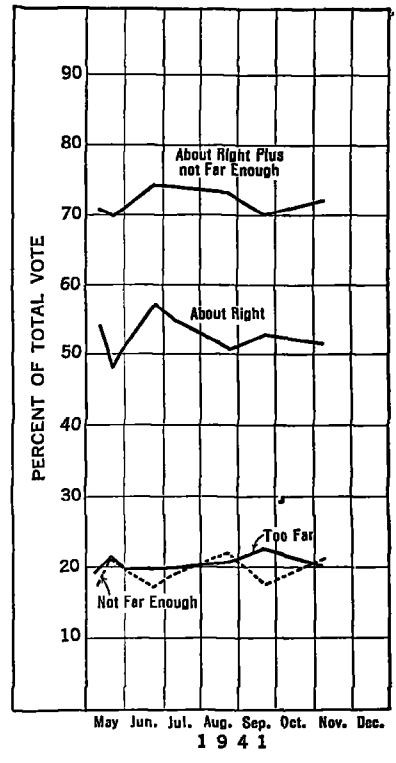


FIG. 5. Opinion toward Roosevelt's aid-to-Britain policies.

OPINION AND POLICY

Early in May 1941 the Gallup poll first asked the question "So far as you personally are concerned, do you think President Roosevelt has gone too far in his policies of helping Britain, or not far enough?" Figure 5 shows the almost uncanny way in which the President was able to balance public opinion around his policies. In spite of the fact that

TABLE 2

COMPARISON OF PUBLIC OPINION AND CONGRESSIONAL LEGISLATION

Important issues	Public opinion		When passed by Congress
	Percent of those with opinions who voted "yes"	Date	
Repeal arms embargo	50	Aug. 17, '39	Nov. 3, '39
Make war supplies available to democracies on noncash basis . .	52	May 14, '40	Mar. 11, '41
Conscript man power	50	May 14, '40	Aug. 28, '40
Use U. S. Navy to convoy supplies	53	Apr. 25, '41	Nov. 13, '41
Use American ships and crews to carry supplies	55	Oct. 1, '41	Nov. 13, '41

United States aid to Britain constantly increased after May, the proportion of people who thought the President had gone too far, about right, and not far enough remained fairly constant.

This does not mean, however, that even a President with Roosevelt's popularity could have carried the 50 percent middle-of-the-roaders as he did with any radically different policies than those he actually pursued. It seems almost certain that the majority of the American people, with access to news telling them of totalitarian aggressions and of our own state of preparedness, would never have followed either an appeasing Roosevelt or a Roosevelt obviously trying to hurry us into war. A close examination of poll results does show, however, that since the late spring of 1941 the public has been considerably ahead of the President's official stated policy. For example, if instead of using the President's name in the question above, the question is changed to "So far as you personally are concerned, do you think the United States has gone too far in its policies of helping Britain, or not far enough," the "not far enough" alternative generally draws about 32 percent of the vote, instead of the usual 20 percent when the President's name is mentioned. If the President had chosen to "get us into war" somewhat faster, there is every evidence that he could easily have done so. The public was half waiting for a push from its leader. The reverse may also have been true.

Anyone who has followed public opinion through the polls or any other systematic device knows that since the outbreak of World War II, the common man in this country has been ahead of his Congressman in urging more aid to Britain and her Allies. The complete record cannot be given here; but in Table 2 are listed at random some of the more important issues that have come before Congress, together with the dates on which at least 50 percent of the people who had opinions voted for implementation of the interventionist program indicated. In every case it will be seen that Congress lagged behind the people—sometimes ten months, sometimes only one month, an average of about four months on our small sample. The figures err, of course, on the conservative side, since the polls did not tap opinion each week during the period when people were making up their minds.

With respect to Japan, the record shows that by late March 1941, 60 per-

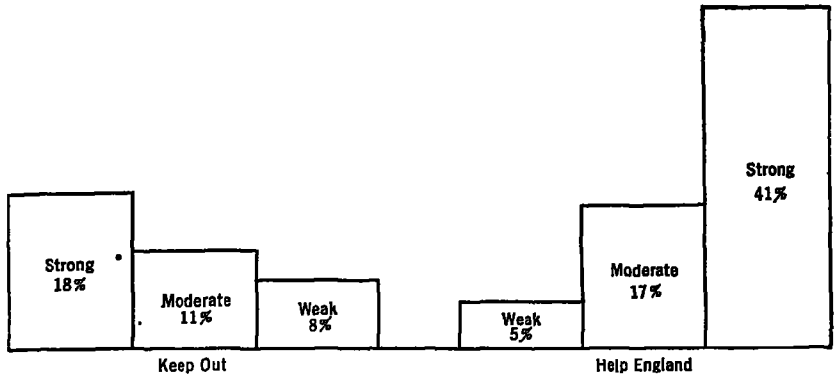


FIG. 6. Intensity of opinion. Question: "Which of these two things do you think is the more important for the United States to try to do — to keep out of war ourselves, or to help England win even at the risk of getting into the war?" April 25, 1941. Keep out, 37 percent; help England, 63 percent.

cent of the total population wanted to stop Japanese aggressions at the risk of war, and as early as June 1938, over three fourths of the total population favored an embargo on all war supplies to Japan—an embargo finally put into effect by the President more than three years later.

SOME CHARACTERISTICS OF OPINION

The trend charts and the national averages reported refer only to the *direction* of opinion. As we have already noted, the general orientation of opinion was set before the war began—only 2 percent of us said we wanted Germany to win. To learn how we got more specific directives and to appreciate the dramatic climax of opinion with our entrance into World War II, it is therefore necessary to see what other dimensions of opinion were operative.

Intensity. Changes of opinion depend in part upon how strongly people hold their opinions—how convinced they are of their beliefs. For a number of reasons, this dimension of intensity is difficult to measure in a large population. What measures we have made are at least consistent with one another, and show that by and large, the ratio of "strongly" held to "mildly" held opinion was greater among interventionists than among noninterventionists (Fig. 6). They also show a progressive increase in the intensity of interventionist opinion. With the possible exception of the brief critical period in midsummer 1940, it would have been consistently more difficult for interventionists than for noninterventionists to reverse their opinions.

Stability. The stability of opinion is essentially a measure of both the direction and the intensity of opinion at different times and under different circumstances. It is readily tested with polling devices by the use of split but comparable samples of the population, each of which receives questions biased in various directions. The results of many such tests indicate that opinion concerning war aims and objectives has been stable since the spring of 1941—the majority of us were convinced that the Nazis had to be defeated; however, opinion concerning the instrumentation of these aims, or opinion on topics which the common man knew little about or had little interest in, has been relatively unstable. Two examples of the stability of opinion concerning war aims may be

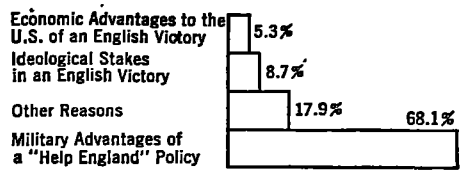


FIG. 7. Chief reasons given by persons who believed it was more important to help England than it was to keep out of war (61 percent of total population, June 1941).

cited. In both these instances, biased wordings produced no differences in results.

In April 1941 the *Fortune* poll reported results on a number of questions deliberately biased in opposite directions when asked of two populations (*A* and *B* below) but asked in a straightforward way of a third comparable population (*C* below).

Population A:

Hitler will never be satisfied unless he dominates the U. S. because it is the richest country in the world.

Agree	68.3 percent
Disagree	22.8 percent
Don't know	8.9 percent

Population B:

Hitler is only interested in making Germany a powerful nation in Europe, and talk about his wanting to dominate this country is just British propaganda.

Disagree	68.0 percent
Agree	21.3 percent
Don't know	10.7 percent

Population C:

Do you think that Hitler wants to dominate the U. S.?

Yes	69.3 percent
No	23.0 percent
Don't know	7.7 percent

In July 1941 the Office of Public Opinion Research asked the following questions of comparable sample populations:

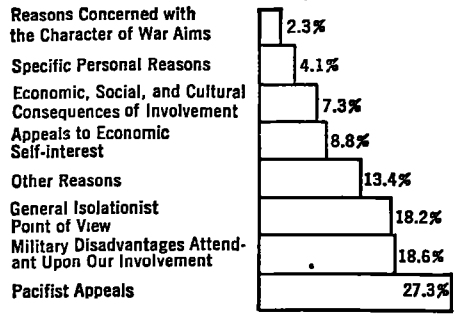


FIG. 8. Chief reasons given by persons who believed it was more important to keep out of war than it was to help England (39 percent of total population, June 1941).

Population A:

Some people say that since Germany is now fighting Russia, as well as Britain, it is not as necessary for this country to help Britain.

Agree	20.2 percent
Disagree	72.4 percent
No opinion	7.4 percent

Population B:

Some people say that since Germany will probably defeat Russia within a few weeks and then turn her full strength against Britain, it is more important than ever that we help Britain.

Agree	71.0 percent
Disagree	18.9 percent
No opinion	10.1 percent

Breadth. A third dimension of opinion is its inclusiveness, or generality. We want to know if a person's attitude toward one problem has any bearing on his attitude toward another problem. Is one opinion merely something to which a person has become conditioned, or is it something related to a larger mental context? By and large, as we should expect, opinions concerning the war form consistent patterns, indicating that the various opinions in a common pattern trace back to the same roots or standards of judgment.

TABLE 3

RELATIONSHIP OF OPINIONS

Other Opinions		"Which of these two things do you think is more important for the United States to try to do: To keep out of war ourselves, or To help England win, even at the risk of getting into the war?" (3–12–41)	
		Keep out, percent	Help England, percent
National Total		*32*	*68*
Any men in family between 16 and 36?	Yes	66	66
	No	34	34
Willing to fight or have family member fight?	Yes	33	75
	No	62	20
	No opinion	5	5
If Germany defeats England will she attack U. S. in next ten years?	Yes	33	75
	No	54	19
	No opinion	13	6
If England falls, will Germany control trade?	Yes	32	73
	No	53	21
	No opinion	15	6
Was it a mistake for U. S. to enter last war?	Yes	66	26
	No	17	58
	No opinion	17	16
Which side will win?	England	44	75
	Germany	20	12
	Neither	11	3
	Undecided	25	10
If Germany wins, will you be as free to do what you want as you are now?	Yes	52	24
	No	38	72
	No opinion	10	4
If Germany wins, will we have to pay for strong defense and be poorer than we are now?	Yes	54	78
	No	35	16
	No opinion	11	6

The way opinions hang together is illustrated in Table 3. If the opinion pattern of the "Keep Out" group is compared to the pattern of the "Help England" group, the significance of each becomes more apparent. Particularly noteworthy in this table is the fact that interventionist or noninterventionist opinion appears entirely unrelated to the presence or absence in the family of men of military age.

Depth. For the psychologist concerned with motivation, the most fascinating chapters in the story of public opinion during the war are those which trace different opinions of different people

back to their basic determinants. From what comprehensive frames of reference are opinions derived? What are the bases of these frames of reference? How are opinions related to the ego? Each psychologist will explore the dimensions of depth according to his own conceptual framework.

We cannot describe this search for determinants here, but it is vital for us to record in the story of opinion flux the rationale behind opinions before this country became a partner in the shooting war. Figures 7 and 8 classify the chief reasons people gave in June 1941 for thinking it was more important to try to keep out of war or to help England at the risk of war. Three conclusions stand out especially from these classifications of reasons. First, the great majority of people who favored an aid-to-Britain policy did so for hard-headed, realistic, selfish reasons. Second, noninterventionist attitudes were based primarily on traditional pacifist appeals, applicable to any war at any time. Third, the character of Britain's war aims was quite incidental in determining opinion.

In view of the nature of opinion as revealed by these dimensions, the increasingly belligerent interventionist answer of the American people to the course of world events is easily understood. Most of us were simply convinced that it was to our own self-interest to defeat the Nazis; this determination was so deeply rooted that it could not be sidetracked; our extensive news services and mass media of communication won our confidence and kept us so well informed that we became increasingly alert to the implications events and courses of action had for our self-interest.

Interpretations for Morale

The great majority of us in the United States were psychologically prepared for war when war came. We were determined to defeat the Nazis, and we fully expected to fight all the Axis partners. We were willing to do this to preserve a way of life whose advantages had been brought into high relief by totalitarian practices. This country entered World War II with a public opinion undoubtedly more united than it had been before any previous war in the nation's history. Our morale was high.

It is appropriate, therefore, that we draw together the interpretations from our data by asking just what the psychological conditions are that contribute to high national morale and that set requirements which must be met if a high state of morale is to be sustained. From our present knowledge of public opinion and the mental world of the common man, we can list at least nine essential components of good morale in a democracy such as ours at this particular point in the world's history.[3]

1. Since our democracy today frankly acknowledges its faith in the judgment of the common man, it is essential that public opinion be informed. Given sufficient facts and motivated to pay attention to those facts, the common man will reach a decision based on his own self-interest as a member of a democratic community. His knowledge is functional. Good morale, then, depends on *the awareness of the objectives we are fighting for*. These objectives are both negative and positive; negative objectives being those such as the desire to beat the Nazis, to destroy tyranny; positive objectives being those such as the desire to preserve and develop democracy here, to insure a world order where we and common men everywhere have maximum freedom to develop ourselves.

2. Since democracy is a government by consent, good morale depends upon *the degree of agreement with the objective*

[3] The Office of Public Opinion Research has designed a special "morale ballot" to test the state of morale on each of these components from time to time. The first survey was completed before our entrance into the war.

—an agreement obtained without intimidation or coercion.

3. Morale will depend upon *the faith men have that their objective can be attained*. The morale of both citizen and soldier is determined more by his confidence in ultimate victory than by his belief in the righteousness of his cause.

4. Since the common man of democracy wants and expects to learn the truth and to find out what is likely to be in store for him if he chooses one of several alternative courses of action, it is important that he have *a realistic picture of the magnitude of the job ahead* of him if his objective is to be attained. Methods of indirection and sugar coating are grim reminders of a former war and are recognized today as methods of totalitarian states.

5. Morale will depend upon the public's *determination to achieve the accepted objectives* at whatever cost is necessary. The sacrifices people are willing to make to achieve the goal are the best measures of the intensity of their convictions.

6. Morale will depend upon *the confidence people have in their leaders* and in his chief advisers. It is easier for most people to decide on the objectives they want to reach than on the methods they should use to achieve these objectives. They expect their elected leaders and associated experts to find the best ways to instrument policy. In a war crisis, where citizens are almost completely identified with an objective but have little to say about its implementation, confidence in responsible officials becomes more than usually important as an element of morale.

7. Since people now know that wars are won or lost by virtue of efficiently organized economic and military machines, their morale will depend partially on *the extent to which they are satisfied with the way "their side" as a whole is moving* toward its general objective. By "their side" they will mean not only their fellow factory workers or air raid observers, but also their allies in distant lands.

8. Morale will depend upon ***the extent to which the country is unified***—the extent to which individual, group, or institutional differences are submerged in a primary allegiance to the common effort.

9. Since morale depends on a unified effort to achieve a goal, it is important that *the individual should feel he is making a useful contribution* to this effort, that he should honestly be able to identify himself as a functional unit in the war machine.

3.

SOCIAL FACTORS IN VOTING

By Paul F. Lazarsfeld, Bernard Berelson, and Hazel Gaudet

[The following chapters are part of an elaborate study which was conducted in Erie County, Ohio, in 1940. From May until a week after the election in November, a sample of 600 people was interviewed seven times. A large variety of questions was asked as to people's vote intention, opinions, reading and listening record between two interviews and so on. The main purpose of the study was to use repeated interviews in order to study *change* in opinion. These chapters represent special examples of this relatively new area of research.]

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TABLE 1

THE PARTY CHANGERS AND THEIR POLITICAL PREDISPOSITIONS

IPP	Kind of change in vote intention	
	Democratic-Republican	Republican-Democratic
"Republican"	24	4
"Democratic"	16	10

THE POLITICAL HOMOGENEITY OF SOCIAL GROUPS

Repeatedly in this study we found indications that people vote "in groups." In this section we shall focus upon the importance of this aspect of voting.

As the reader will remember, slightly more than half of Erie County voters were Republican. This was true for the total population of the county, as well as for the different groups of 600 people included in our study. If, then, we had taken the name of every hundredth person from an alphabetical list of all county residents, we would have found, again, that slightly more than half were Republicans.

But suppose now we had proceeded differently, had picked a score of Republicans at random, and had asked them to name as many friends, neighbors, and fellow workers as they could remember. If we then asked the people assembled on this list for whom they intended to vote, the proportion of Republicans would have been considerably higher than it was for the county as a whole. And, conversely, if we had started with a score of Democrats and had asked them to name their associates in the different spheres of their lives, we would have found a considerably lower proportion of Republicans on this list than we found in the county.

This represents another formulation of our statement that voting is essentially a group experience. People who work or live or play together are likely to vote for the same candidates.

Two kinds of evidence may be provided for this general statement. On the one hand we can study directly the political homogeneity of such groups as fraternal organizations, churches, sports clubs as well as the family and similar institutionalized groups. On the other hand we can use an indirect approach. People who have certain characteristics in common are more likely to belong to the same groups. We know from general observation, for instance, that people tend to associate with others of their own age rather than with people considerably older or younger than themselves. If we find then that there are marked differences in voting between various age groups, we would have inferential evidence that people who have closer contacts with each other are more apt to vote alike.

SOCIAL STRATIFICATION AND POLITICAL HOMOGENEITY

Beginning with this second and inferential approach, we find our best lead in those factors on which our index of political predisposition was based—SES level,* religious affiliation, and residence.

Each of these three factors plays an important role in deciding what type of people will have close personal contact with each other. Farmers are more likely to see farmers whereas they have less contact with urban people who, in turn, live more among themselves. The same is

* SES level refers to interviewers' ratings of the socio-economic status of the interviewees.

TABLE 2

DIRECTION OF CHANGES NOTICED BY DIFFERENT GROUPS OF RESPONDENTS IN PERCENT

	Majority changed to		None[a]	Total
	FDR	WW		
Republicans	2	54	44	100
Democrats	17	22	61	100
"Don't Knows"	7	21	72	100

[a] Included among those who observed no changes are those few respondents who saw changes in both directions. In each group, however, these constitute no more than 10 percent of the total "none" response.

true for groups of people on different socio-economic levels. Common experiences, as well as precise studies, show that an individual chooses his friends and finds his neighbors on about his own SES level. As a matter of fact, our urban social institutions such as clubs, neighborhoods, restaurants, and informal social gatherings bring together people of similar socio-economic status and contribute to socially stratified living. Finally, common religious affiliation not only brings people together at church affairs, but is likely to influence marital choice and may affect employment.

Thus, what we have said before can be reformulated in the following fashion: People who have similar ratings according to the index of political predispositions (IPP) are also likely to live in closer contact with each other. And, the groups which they form are likely to be rather homogeneous in political outlook and behavior.

This tendency is accentuated during the course of the campaign. If we use our IPP ratings as an index of the groups to which people belong, then the changes in vote intention increase group homogeneity. Table 1 has classified the 54 changers according to their IPP ratings. If, first, we look at their May vote intentions, we find that 60 percent of them (the 24 cases with "Republican" IPP ratings who intended to vote Democratic, and the 10 "Democrats" who intended to vote Republican) were deviates. In the October interview, these same individuals had adjusted their vote intention so that it was consistent with their IPP ratings. The remaining 40 percent had become deviates. In other words, the proportion of deviates among the changers had been reduced by 20 percent between May and October. Thus, the majority of voters who change at all change in the direction of the prevailing vote of their social groups.

This result remains substantially the same if we add two control groups, for which we can study the changes between May and July and between May and August.

To the extent that the campaign brings about changes in vote intention, then, these changes operate to increase the political homogeneity of social groups. Upon further scrutiny, it turns out that the people themselves are quite aware that the campaign reshuffles their environment so that, politically, it becomes more consistent with their own views. At the last interview before the election, we asked the following question: "Looking back at the campaign so far, how many people among your friends and relatives have changed their minds on how they will probably vote? In which direction did they change?"

In order to have a clearer picture of

the situation, we studied the responses of only those people who had a constant vote intention and who did not vote in the November elections. What did these people observe going on around them? The answer is given in Table 2.

As we see from this table, each of the two major political environments operates as a kind of magnetic force, drawing to it people of like outlook, and rejecting individuals of dissimilar viewpoint. In other words, each group becomes slowly but surely more homogeneous in political opinion and behavior. The changes taking place around Republican observers are, in a majority of the cases, in a Republican direction. And, conversely, wherever changes in favor of Roosevelt are noticed, they are reported by Democratic observers.

It might be argued that this result can be entirely explained by the mechanism of projection—that our observers saw only those changes which favored the candidates of their choice. Table 2 shows that this is not the case, however. For the Democratic as well as the Republican respondents observed more changes in favor of Willkie. And this indicates the realistic nature of our respondents' observations, for it is known that the county became more and more Republican as the campaign progressed.

The Political Structure of the Family

The family is a group particularly suited to the purposes of our study, because here living conditions attain a maximum of similarity and because mutual contacts are more frequent than in other groupings.

In August we found 344 panel members who had made up their minds as to how they would vote, and who also had another eligible voter living in the same household. At that time, 78 percent of these other eligible voters intended to vote for the same candidate as did the respondent, 20 percent were uncertain, and 2 percent disagreed with the respondent in his choice of candidate. The situation changed little when it came to actual voting. After the election, only 4 percent of the 413 panel members who voted claimed that someone in their families had voted differently from themselves. It is interesting to observe, incidentally, that the extent of disagreement increased slightly toward the end of the campaign. This is consistent with the results where we saw that people under cross-pressure make their final vote intention late.

We can explore the interrelationships of influence within the family in somewhat greater detail. Among husbands and wives, both of whom had decided to vote, only one pair in 22 disagreed. Among parents and children, one pair in 12 disagreed, the gap of a generation increasing differences in life and outlook. Agreement was least—as all the jokes emphasize—among "in-laws" living in the same household. One pair in five showed disagreement on party alignment.

The almost perfect agreement between husband and wife comes about as a result of male dominance in political situations. At one point of the study we asked each respondent whether he had discussed politics with someone else in recent weeks. Forty-five of the women stated that they had talked the election over with their husbands; but, of an equal number of randomly selected men, only four reported discussions with their wives. If these family discussions play as important a role for husbands as they do for wives, then we should get approximately the same number of reports on the interchange of political ideas from both sexes. But only the wives are aware of the political opinions of their husbands. Men do not feel that they are discussing politics with their wives; they feel they are telling them. And, as we can see from the following quotations, the wives are willing to be told:

"On previous interviews, I hadn't

given it any thought, but it is close to election and I guess I will vote Democratic and *go along with my husband.*"

"My husband has always been Republican. He says that if we vote for different parties there is no use in our voting. So *I think I will give in this year and vote Republican. . . .*"

It appears that not only the color of opinion, but the whole level of interest is contagious from one family member to another. Of the men who had a vote intention and great interest in the election, only 30 percent claimed that their wives did not intend to vote, or did not know for whom. For men with less interest, the figure is 52 percent.

If the relationships between father and daughter or between brother and sister are studied, we find a similar dominance of the male in political matters.

In addition, the political homogeneity of the family may extend over several generations. Our panel members were asked, "Do you consider that your family (parents, grandparents) have always been predominantly Democratic or predominantly Republican?" Fully three fourths of the respondents with vote intentions in September followed the political lead of their families. Here are examples of two *first voters* who took over the family pattern at the very beginning of their voting careers:

"Probably will vote Democratic because *my grandfather will skin me if I don't.*"

"If I can register I will vote Republican because *my family are all Republicans so therefore I would have to vote that way.*"

These young voters, one a man and the other a woman, provide excellent illustrations of family influence. Neither had much interest in the election and neither paid much attention to the campaign. Both accepted family tradition for their first votes and both are likely to remain in line with that tradition. In the first case, there is even a hint that

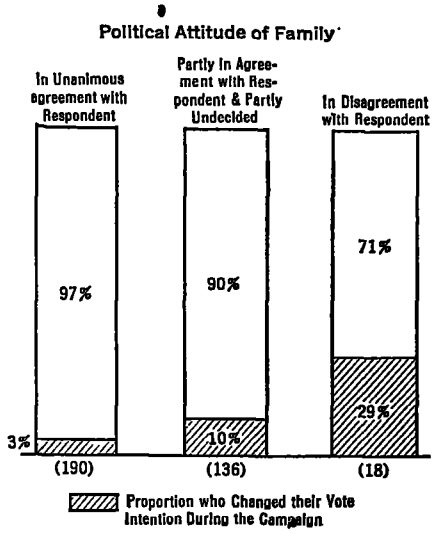


CHART 1. The less homogeneous the family is with respect to their votes, the more the members of the family tend to change their minds.

family sanctions are used to enforce the decision. Thus are party voters born.

Now, what of the exceptional cases in which disagreement does occur within the family? A number of respondents agreed with the young voter just quoted, that political conformity is the price of domestic peace. There was evidence of a good deal of tension in families which could not reach an agreement.

One girl reported in June she intended to vote for the Democratic party because she "liked the Democratic candidates better than the Republicans." She "read an article in *Collier's* about the Republican candidates and didn't think they sounded very interesting." She "felt Roosevelt did a good job as president" and approved the third term. The girl's parents, however, favored the Republican candidate and this was the source of much conflict. The girl's mother told the interviewer: "She just does it to be opposite. I have always felt that *her views were just revolt against tradition and the stuffy ideas of her parents.*"

The respondent finally broke down

and voted for Willkie, explaining, "*My father and friends* thought it would be a good idea not to have Roosevelt for a third term because he would be too much of a dictator."

It is reasonable to expect that with such pressure toward homogeneity, people with unhomogeneous family backgrounds will be more uncertain about their own political affiliations. Chart 1 compares the amount of shifting of political position by respondents from families with different degrees of homogeneity in vote intention.

Less than 3 percent of voters in families homogeneous in August changed their vote intention during the rest of the campaign. But if there were some relatives who were undecided (the second group in Chart 1) almost 10 percent of the respondents shifted between August and October. And in the small group of families in which there was definite disagreement, 29 percent of the respondents went through at least one change in position.

And when the people in families not homogeneous in their vote intentions did change their minds, they changed toward the party favored by the rest of the family. Fully 81 percent of the members of Republican families who were originally undecided were pro-Republican in October; and 71 percent of those in Democratic families later came out for Roosevelt. Whatever the reason, whether honest conviction or family loyalty, the family molded their votes—and as a result the family became politically more homogeneous as the campaign wore on.

Again, if all the family members were undecided about their vote intention in August, 63 percent of the respondents from these families were still undecided two months later. But if anyone in the family had reached a decision in August, the proportion of respondents remaining undecided two months later was only 48 percent. In other words, the person who lives in a family where members have decided their vote intention is much more likely to make up his own mind before Election Day than is the person who lives in a family where no one has a clearcut vote intention.

The family, then, provided a very definite climate of political influence. All of its members are inclined to vote in the same way, and in those cases where there is disagreement, the tension of the situation leads the family members to make some adjustments. It is usually the women who so adjust, and it is from them that we get most of the references to family discussions as sources of change.

There is no reason why other social groups should not be studied in the same way. The higher level of political tension created during the campaign gives us an opportunity to find out how this political homogeneity of social groups comes about. It is to some of the finer aspects of this process that we now turn.

The Role of Formal Associations

Our sample was too small to make feasible a study of specific organizations. But we can distinguish between those people who belong to formal organizations and those who do not. There are two general findings with regard to membership in these formal organizations which are as applicable to Erie County as they are to other American communities which have been studied before. In the first place, we find that the members of any given organization are recruited from fairly similar socio-economic levels. Secondly, people on the lower SES levels are less likely to belong to any organizations than the people on high SES levels. (On the A and B level, we find that 72 percent of these respondents belong to one or more organizations. The proportion of respondents who are members of formal organizations decreases steadily as SES level descends until, on the D level, only 35 percent of the respondents belong to any associations.)

With these two results in mind, what

differences between members and nonmembers of such organizations does our main thesis lead us to expect? We anticipate that on each SES level the social predisposition of organization members will be more strongly activated than is that of those people on the same SES levels who are not subject to the "molecular pressures" of the associations. This, we must realize, will be possible only so long as the comparison is carried out on each separate SES level.

Although the proportion of Republicans is generally great on high SES levels, the Republican trend is still stronger among those who join various associations (Chart 2). Why? Is it not likely that simply meeting more often with other persons, even in organizations not ostensibly concerned with politics, brings about a greater activation of predispositions?

But at the low end of the socio-economic scale, our thesis does not seem to hold true at first glance. According to our thesis, these people on low SES levels who become members of associations should, by association with others of like status, be activated toward a Democratic vote intention. That trend is not quite so apparent in Chart 2, however. It is true that on the D level those active in organizations are a little less likely to be Republicans and somewhat more likely to be Democrats But the difference is slight And on the C— level, the effect of participation is still in the direction of Republicanism

Our thesis is not refuted by these results, however. For reference to the second characteristic of these organizations explains the irregularities in Chart 2 and clarifies the whole situation Any people of C— or D level who belong to these organizations constitute only a small minority, and are naturally influenced by the higher prestige of the dominant group.

The truth of our expectation about the normal tendency of organizations—that

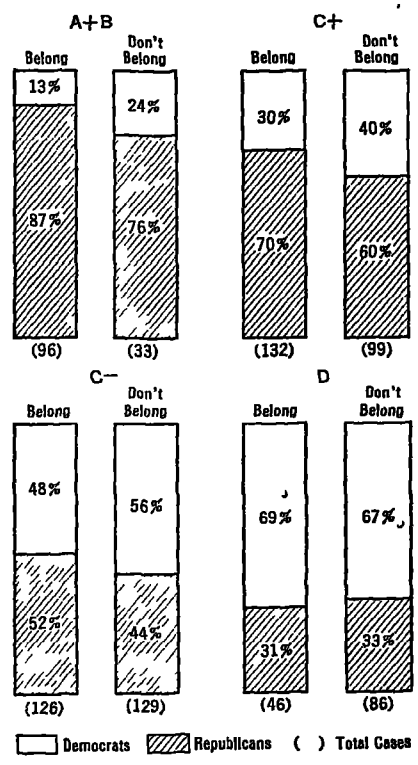


CHART 2 On the three higher SES levels, membership in a social or similar organization reinforces the tendency to vote Republican On the lower SES level, membership makes almost no difference

they activate the latent predispositions of members—can be seen clearly, however, if we study a type of organization which is limited to people of the C— or D level. As we stated above, there are few such groups in Sandusky, but the trade unions do meet our criterion. In his union the worker of C— or D economic level associates with, and is stimulated by, others of like predisposition. As a result, we find that on the C— and D levels, only 31 percent of those who were union members but 53 percent of those who were not union members voted Republican.

Politically, then, formal associations have a class character. They facilitate the transformation of social character-

istics into political affiliations. But, conversely, our results show that the prestige values within the organizations may, in the case of minority members, operate to develop political affiliations which are opposed to the predispositions of these members.

Bringing Opinions into Line

One final observation demonstrates that during the campaign social groups imbue their individual members with the accepted political ideology of the group. By and large, people who intend to vote for a certain party agree with its main tenets. Republicans, as we have seen, do not approve of the third term, have a high opinion of Willkie, think that business experience is more important than government experience, etc. Democrats feel the other way around on all these issues. But in the middle of the campaign, in August, there were still a number of people who had an inconsistent attitude pattern. There were, for instance, 33 Republicans who felt that government experience is more important in a president, and 30 Democrats who thought that business experience would be more desirable. In the course of the campaign there was a tendency toward consistency. More than half (33) of the people just mentioned achieved harmony between vote intention and opinion on this specific question by October. But how did this come about? Did people finally join the party which conformed to their ideas or did they take over the prevailing opinion of the political group to which they belonged? This answer is very clear-cut. Thirty retained their party allegiance but changed their vote intention to fit their theory.

This is consistently true for whatever specific opinion we take. Inconsistencies are reduced, but in such a way that people stick to their vote intention and start to think about specific issues in the way the majority of their fellow partisans do. These results fit very well into what we have said before. If a person's vote intention is to a great degree a symbol of the social group to which he or she belongs, then we should not be surprised that people iron out inconsistencies in their thinking in such a way as to conform to the group with which they live from day to day. In a way, the content of this chapter can be summarized by saying that people vote, not only *with* their social group, but also *for* it.

Vote Decision as a Social Experience

How may we explain the fact that social groups are politically homogeneous and that the campaign increases this homogeneity still more? There is, first, the fact that people who live together under similar external conditions are likely to develop similar needs and interests. They tend to see the world through the same colored glasses; they tend to apply to common experiences common interpretations. They will approve of a political candidate who has achieved success in their own walk of life; they will approve of programs which are couched in terms taken from their own occupations and adapted to the moral standards of the groups in which they have a common "belonging."

But this is only part of the picture. There may be many group members who are not really aware of the goals of their own group. And there may be many who, even if they were aware of these goals, would not be sufficiently interested in current events to tie the two together consciously. They acquiesce to the political temper of their group under the steady, personal influence of their more politically active fellow citizens. Here again, we find the process of activation by which the predisposed attitudes of some are brought out by the influence of others. But, in addition, we see here the direct effectiveness of personal contacts. It is these which we must study in specific detail.

The Nature of Personal Influence

The political homogeneity of social groups is promoted by personal relationships among the same kinds of people. But for a detailed and systematic study of the influence of such relationships—the political role of personal influence—a systematic inventory would be needed of the various personal contacts and political discussions that people had over a sample number of days. That would provide an index of personal exposure similar to the indices of exposure to the formal media developed in previous chapters. Such complete data are not available in the present study, but enough information has been collected to indicate the importance of personal relationships so far as their direct political influence is concerned. Our findings and impressions will be summarized without much formal statistical data. The significance of this area of political behavior was highlighted by the study but further investigation is necessary to establish it more firmly.

In comparison with the formal media of communication, personal relationships are potentially more influential for two reasons: their coverage is greater and they have certain psychological advantages over the formal media.

Personal Contacts Reach the Undecided

Whenever the respondents were asked to report on their recent exposure to campaign communications of all kinds, political discussions were mentioned more frequently than exposure to radio or print. On any average day, at least 10 percent more people participated in discussions about the election—either actively or passively—than listened to a major speech or read about campaign items in a newspaper. And this coverage "bonus" came from just those people who had not yet made a final decision as to how they would vote. Political conversations, then, were more likely to reach those people who were still open to influence.

For example, people who made up their minds later in the campaign were more likely to mention personal influences in explaining how they formed their final vote decision. Similarly, we found that the less interested people relied more on conversations and less on the formal media as sources of information. Three fourths of the respondents who at one time had not expected to vote but were then finally "dragged in" mentioned personal influence. After the election, the voters were given a check list of "sources from which they got most of the information or impressions that caused them to form their judgment on how to vote." Those who had made some change during the campaign mentioned friends or members of their family relatively more frequently than did the respondents who kept a constant vote intention all through the campaign.

The Two-step Flow of Communications

A special role in the network of personal relationships is played by the "opinion leaders." We noted that they engaged in political discussion much more than the rest of the respondents. But they reported that the formal media were more effective as sources of influence than personal relationships. This suggests that ideas often flow *from* radio and print *to* the opinion leaders and *from* them to the less active sections of the population.

Occasionally, the more articulate people even pass on an article or point out the importance of a radio speech. Repeatedly, changers referred to reading or listening done under some personal influence. Take the case of a retired school teacher who decided for the Republicans: "The country is ripe for a change . . . Willkie is a religious man. *A friend read*

and highly recommended Dr. Poling's article in the October issue of the *Christian Herald* called 'The Religion of Wendell Willkie.'"

So much for the "coverage of personal contacts." The person-to-person influence reaches the ones who are more susceptible to change, and serves as a bridge over which formal media of communications extend their influence. But in addition, personal relationships have certain psychological advantages which make them especially effective in the exercise of the "molecular pressures" finally leading to the political homogeneity of social groups. We turn now to a discussion of five such characteristics.

Nonpurposiveness of Personal Contacts

The weight of personal contacts upon opinion lies, paradoxically, in their greater casualness and nonpurposiveness in political matters. If we read or tune in a speech, we usually do so purposefully, and in doing so we have a definite mental set which tinges our receptiveness. Such purposive behavior is part of the broad area of our political experiences, to which we bring our convictions with a desire to test them and strengthen them by what is said. This mental set is armor against influence. The extent to which people, particularly those with strong partisan views, listen to speakers and read articles with which they agree in advance is evidence on this point.

On the other hand, people we meet for reasons other than political discussion are more likely to catch us unprepared, so to speak, if they make politics the topic. One can avoid newspaper stories and radio speeches simply by making a slight effort, but as the campaign mounts and discussion intensifies, it is hard to avoid some talk of politics. Personal influence is more pervasive and less self-selective than the formal media. In short, politics gets through, especially to the indifferent, much more easily through personal contacts than in any other way, simply because it comes up unexpectedly as a sideline or marginal topic in a casual conversation. For example, there was the restaurant waitress who decided that Willkie would make a poor president after first thinking he would be good. Said she: "I had done a little newspaper reading against Willkie, but the real reason I changed my mind was from *hearsay*. So many people don't like Willkie. Many customers in the restaurant said Willkie would be no good." Notice that she was in a position to overhear bits of conversation that were not intended for her. There are many such instances. Talk that is "forbidden fruit" is particularly effective because one need not be suspicious as to the persuasive intentions of the speakers; as a result one's defenses are down. Furthermore, one may feel that he is getting the viewpoint of "people generally," that he is learning how "different people" think about the election.

Such passive participation in conversation is paralleled in the case of the formal media by accidental exposure, e.g., when a political speech is heard because it follows a favorite program. In both conversation and the formal media, such chance communication is particularly effective. And the testimony to such influence is much more frequent in the case of personal contacts. The respondents mentioned it time and again: "I've heard fellows talk at the plant . . . I hear men talk at the shop. . . . My husband heard that talked about at work. . . ."

Flexibility When Countering Resistance

But suppose we do meet people who want to influence us and suppose they arouse our resistance. Then personal contact still has one great advantage compared with other media: the face-to-face contact can counter and dislodge such resistance, for it is much more flexible. The clever campaign worker, professional

or amateur, can make use of a large number of cues to achieve his end. He can choose the occasion at which to speak to the other fellow. He can adapt his story to what he presumes to be the other's interests and his ability to understand. If he notices the other is bored, he can change the subject. If he sees that he has aroused resistance, he can retreat, giving the other the satisfaction of a victory, and come back to his point later. If in the course of the discussion he discovers some pet convictions, he can try to tie up his argument with them. He can spot the moments when the other is yielding, and so time his best punches.

Neither radio nor the printed page can do anything of the kind. They must aim their propaganda shots at the whole target instead of just at the center, which represents any particular individual. In propaganda as much as in other things, one man's meat is another man's poison. This may lead to boomerang effects, when arguments aimed at "average" audiences with "average" reactions fail with Mr. X. The formal media produced several boomerangs upon people who resented what they read or heard and moved in the opposite direction from that intended. But among 58 respondents who mentioned personal contacts as concretely influential, there was only one boomerang. The flexibility of the face-to-face situation undoubtedly accounted for their absence.

Rewards of Compliance

When someone yields to a personal influence in making a vote decision, the reward is immediate and personal. This is not the case in yielding to an argument via print or radio. If a pamphlet argues that voting for the opposite party would be un-American or will jeopardize the future, its warning may sound too remote or improbable. But if a neighbor says the same things, he can "punish" one immediately for being unimpressed or unyielding: he can look angry or sad, he can leave the room and make his fellow feel isolated. The pamphlet can only intimate or describe future deprivations; the living person can create them at once.

Of course all this makes personal contacts a powerful influence only for people who do not like to be out of line. There are certainly some people who gain pleasure from being nonconformists, but under normal circumstances they are probably very much in the minority. Whenever propaganda by another person is experienced as an expression of the prevailing group tendencies, it has greater chances of being successful than the formal media because of social rewards. For example, here is a woman who was for Roosevelt until the middle of the campaign: "I have always been a Democrat and I think Roosevelt has been all right. But my family are all for Willkie. They think he would make the best president and they have been putting the pressure on me." She finally voted for Willkie. This aspect of personal contacts was especially important for women.

The rewards of compliance to other people are learned in early childhood. The easiest way for most children to avoid discomfort is to do what others tell them to do. Someone who holds no strong opinions on politics and hence makes up his mind late in the campaign may very well be susceptible to personal influences because he has learned as a child to take them as useful guides in unknown territory. The young man who was going to vote for Roosevelt because "my grandfather will skin me if I don't" is a case in point.

Trust in an Intimate Source

People put more reliance upon their personal contacts to help them pick out the arguments which are relevant for their own good in political affairs than they do in the more remote and impersonal newspaper and radio. The doubtful voter may feel that the evaluations he reads or hears in a broadcast are plausi-

ble, for the expert writer can probably spell out the consequences of voting more clearly than the average citizen. But the voter still wonders whether these are the issues which are really going to affect *his own* future welfare. Perhaps these sources see the problem from a viewpoint entirely different from his own. But he can trust the judgment and evaluation of the respected people among his associates. Most of them are people with the same status and interests as himself. Their attitudes are more relevant for him than the judgments of an unknown editorial writer. In a formal communication the content can be at its best; but in a face to face contact the transference is most readily achieved. For example, here is the case of a young laborer who professed little or no interest in the campaign and who did not even expect to vote until late October: "I've been discussing the election with *the fellows at the shop* and I believe I'll vote, but I haven't decided yet who for." His constant exposure to the views of his fellow-workers not only brought him to the ballot booth but also brought out his final Democratic vote in line with his colleagues.

A middle-aged woman who showed great interest in the campaign was undecided until late October and then voted for Willkie: "*I was talking politics just this morning with a friend, a businessman.* He says business will improve if Willkie is elected and that Willkie promises to keep us out of the war. FDR is getting too much power. He shouldn't have a third term." Her friend had apparently run out for her what amounted to a small catalogue of Republican arguments and he was impressive enough to clinch her vote, which had been in the balance throughout the campaign. Her trust in his judgment settled her mind.

Trust in another person's point of view may be due to his prestige as well as to the plausibility of what he has to say or its relevancy to one's interests. It is obvious that in all influences prestige plays a considerable role. The degree of conformity is greater the higher the prestige of the person in our group who seeks to influence us. The plausibility of the consequences he presents will seem greater if he is important. (Of course, the formal media are also important in this respect.) The heightening of trust through the prestige of certain personal contacts was clear in the case of the driver of a bread truck who changed to Willkie because the prominent president of a business firm had done him the honor of persuading him in that direction. Then, too, there is the case of a middle-aged housewife with little education who was for Willkie from May through September, became undecided in October, and finally voted for Roosevelt. She left Willkie because of the statements of people whom she considered authorities: "I talked with *a college student* from Case, in Cleveland, and students are for Roosevelt because he has helped recreation. I talked, too, with a *man from Chicago who is very interested in politics*, and he doesn't seem to think that Willkie is a big enough man to handle international affairs."

Persuasion without Conviction

Finally, personal contacts can get a voter to the polls without affecting at all his comprehension of the issues of the election—something the formal media can rarely do. The newspaper or magazine or radio must first be effective in changing attitudes related to the action. There were several clear cases of votes cast not on the issues or even the personalities of the candidates. In fact, they were not really cast for the candidates at all. They were cast, so to speak, for the voters' friends.

"*I was taken to the polls* by a worker who insisted that I go."

"*The lady where I work wanted me to vote.* She took me to the polls and *they all voted Republican so I did too.*"

In short, personal influence, with all

its overtones of personal affection and loyalty, can bring to the polls votes that would otherwise not be cast or would be cast for the opposing party just as readily if some other friend had insisted. They differ from the formal media by persuading uninterested people to vote in a certain way without giving them a substantive reason for their vote. Fully 25 percent of those who mentioned a personal contact in connection with change of mind failed to give a real issue of the campaign as a reason for the change, but only 5 percent of those who mentioned the formal media omitted such a reason. When personal influence is paramount in this way, the voter is voting mainly for the personal friend, not the candidate.

Practical Implications

In a way the outcome of the election in Erie County is the best evidence for the success of face-to-face contacts. It so happened that for some time the Republican machine in that area worked much more vigorously than its Democratic opponent. When asked whether they knew people who had good ideas about politics, our respondents mentioned considerably more Republican than Democratic local politicians. A few people who did not expect to vote but finally went to the polls mentioned Republican canvassers as the main influence, but we could not trace a similar success for the Democratic machine.

However, one should not identify the personal contacts discussed in this chapter with the efforts of the *professional* political machines. These personal contacts are what one might call *amateur machines* which spring up during elections—individuals who become quite enthusiastic or special groups that try to activate people within their reach. One might almost say that the most successful form of propaganda—especially last-minute propaganda—is to "surround" the people whose vote decision is still dubious so that the only path left to them is the way to the polling booth. We do not know how the budget of the political parties is distributed among different channels of propaganda but we suspect that the largest part of any propaganda budget is spent on pamphlets, radio time, etc. But our findings suggest the task of finding the best ratio between money spent on formal media and money spent on organizing the face-to-face influences, the local "molecular pressures" which vitalize the formal media by more personal interpretation and the full richness of personal relationships into the promotion of the causes which are decided upon in the course of an election.

In the last analysis, more than anything else people can move other people. From an ethical point of view this is a hopeful aspect in the serious social problem of propaganda. The side which has the more enthusiastic supporters and which can mobilize grass-root support in an expert way has great chances of success.

XV

Critical Social Situations

1.

THE INVASION FROM MARS *By Hadley Cantril*

On the evening of October 30, 1938, thousands of Americans became panic-stricken by a broadcast purported to describe an invasion of Martians which threatened our whole civilization. Probably never before have so many people in all walks of life and in all parts of the country become so suddenly and so intensely disturbed as they did on this night.

Such rare occurrences provide opportunities for the social scientist to study mass behavior. They must be exploited when they come. Although the social scientist unfortunately cannot usually predict such situations and have his tools of investigation ready to analyze the phenomenon while it is still on the wing, he can begin his work before the effects of the crisis are over and memories are blurred. The situation created by the broadcast was one which shows us how the common man reacts in a time of stress and strain. It gives us insights into his intelligence, his anxieties, and his needs, which we could never get by tests or strictly experimental studies. The panic situation we have investigated had all the flavor of everyday life and, at the same time, provided a semi-experimental condition for research. In spite of the unique conditions giving rise to this particular panic, the writer has attempted to indicate throughout the study the pattern of the circumstances which, from a psychological point of view, might make this the prototype of any panic.

The fact that this panic was created as a result of a radio broadcast is today no mere circumstance. The importance of radio's role in current national and international affairs is too well known to be recounted here. By its very nature radio is the medium *par excellence* for informing all segments of a population of current happenings, for arousing in them a common sense of fear or joy, and for exciting them to similar reactions directed toward a single objective.

Because the social phenomenon in question was so complex, several methods were employed to seek out different answers and to compare results obtained by one method with those obtained by another. Much of our information was derived from detailed interviews of 135 persons. Over 100 of these persons were selected because they were known to have been upset by the broadcast.

Long before the broadcast had ended, people all over the United States were praying, crying, fleeing frantically to escape death from the Martians. Some ran to rescue loved ones. Others telephoned farewells or warnings, hurried to inform neighbors, sought information from newspapers or radio stations, summoned ambulances and police cars. At

A partial summary by Cantril of Hadley Cantril, Hazel Gaudet, and Herta Hertzog *The Invasion from Mars* (Princeton, N. J.: Princeton University Press, 1940). Reprinted by permission of the authors and the publisher.

least six million people heard the broadcast. At least a million of them were frightened or disturbed.

For weeks after the broadcast, newspapers carried human-interest stories relating the shock and terror of local citizens. Men and women throughout the country could have described their feelings and reactions on that fateful evening. Our own interviewers and correspondents gathered hundreds of accounts. A few of these selected almost at random will give us a glimpse of the excitement. Let the people speak for themselves.

"I knew it was something terrible and I was frightened," said Mrs. Ferguson, a northern New Jersey housewife, to the inquiring interviewer. "But I didn't know just what it was. I couldn't make myself believe it was the end of the world. I've always heard that when the world would come to an end, it would come so fast nobody would know—so why should God get in touch with this announcer? When they told us what road to take and get up over the hills and the children began to cry, the family decided to go out. We took blankets and my granddaughter wanted to take the cat and the canary. We were outside the garage when the neighbor's boy came back and told us it was a play."

From a small midwestern town came Joseph Hendley's report. "That Hallowe'en Boo sure had our family on its knees before the program was half over. God knows how we prayed to Him last Sunday. It was a lesson in more than one thing to us. My mother went out and looked for Mars. Dad was hard to convince or skeptical or sumpin', but he even got to believing it. Brother Joe, as usual, got more excited than he could show. Brother George wasn't home. Aunt Grace, a good Catholic, began to pray with Uncle Henry. Lily got sick to her stomach. I don't know what I did exactly but I know I prayed harder and more earnestly than ever before. Just as soon as we were convinced that this thing was real, how pretty all things on earth seemed; how soon we put our trust in God."

Archie Burbank, a filling-station operator in Newark, described his reactions. "My girl friend and I stayed in the car for awhile, just driving around. Then we followed the lead of a friend. All of us ran into a grocery store and asked the man if we could go into his cellar. He said, 'What's the matter? Are you trying to ruin my business?' So he chased us out. A crowd collected. We rushed to an apartment house and asked the man in the apartment to let us in his cellar. He said, 'I don't have any cellar! Get away!' Then people started to rush out of the apartment house all undressed. We got into the car and listened some more. Suddenly, the announcer was gassed, the station went dead so we tried another station but nothing would come on. Then we went to a gas station and filled up our tank in preparation for just riding as far as we could. The gas station man didn't know anything about it. Then one friend, male, decided he would call up the *Newark Evening News*. He found out it was a play. We listened to the rest of the play and then went dancing."

Mrs. Joslin, who lives in a poor section of a large eastern city and whose husband is a day laborer, said, "I was terribly frightened. I wanted to pack and take my child in my arms, gather up my friends, and get in the car and just go north as far as we could. But what I did was just set by one window, prayin', listenin', and scared stiff and my husband by the other shifflin' and lookin' out to see if people were runnin'. Then when the announcer said 'evacuate the city,' I ran and called my boarder and started with my child to rush down the stairs, not waitin' to ketch my hat or anything. When I got to the foot of the stairs I just couldn't get out, I don't know why. Meantime my husband he

tried other stations and found them still runnin'. He couldn't smell any gas or see people runnin', so he called me back and told me it was just a play. So I set down, still ready to go at any minute till I heard Orson Welles say, 'Folks, I hope we ain't alarmed you. This is just a play!' Then, I just set!"

If we are to explain the reaction, then, we must answer two basic questions: Why did this broadcast frighten some people when other fantastic broadcasts do not? And why did this broadcast frighten some people but not others? An answer to the first question must be sought in the characteristics of this particular program which aroused false standards of judgment in so many listeners.

No one reading the script can deny that the broadcast was so realistic for the first few minutes that it was almost credible to even relatively sophisticated and well-informed listeners. The sheer dramatic excellence of the broadcast must not be overlooked. This unusual realism of the performance may be attributed to the fact that the early parts of the broadcast fell within the existing standards of judgment of the listeners.

A large proportion of listeners, particularly those in the lower income and educational brackets, have grown to rely more on the radio than on the newspapers for their news. Almost all of the listeners, who had been frightened and who were interviewed, mentioned somewhere during the course of their retrospections the confidence they had in radio and their expectation that it would be used for such important announcements. A few of their comments indicate their attitudes:

"We have so much *faith in broadcasting*. In a crisis it has to reach all people. That's what radio is here for."

"The announcer would not say if it was not true. *They always quote if something is a play.*"

As in many situations where events and ideas are so complicated or far removed from one's own immediate everyday experience that only the expert can really understand them, here, too, the layman was forced to rely on the expert for his interpretation.

The logical "expert" in this instance was the astronomer. Those mentioned (all fictitious) were Professor Farrell of the Mount Jennings Observatory of Chicago, Professor Pierson of the Princeton Observatory, Professor Morse of MacMillan University in Toronto, Professor Indellkoffer of the California Astronomical Society and "astronomers and scientific bodies" in England, France, and Germany. Professor Richard Pierson (Orson Welles) was the chief character in the drama.

When the situation called for organized defense and action the expert was once more brought in. General Montgomery Smith, commander of the State Militia at Trenton, Mr. Harry McDonald, vice-president of the Red Cross, Captain Lansing of the Signal Corps, and finally the Secretary of the Interior described the situation, gave orders for evacuation and attack, or urged every man to do his duty.

This dramatic technique had its effect.

"I believed the broadcast *as soon as I heard the professor from Princeton* and the officials in Washington."

"I knew it was an awfully dangerous situation *when all those military men were there and the Secretary of State spoke.*"

The realistic nature of the broadcast was further enhanced by descriptions of particular occurrences that listeners could readily imagine. Liberal use was made of the colloquial expressions to be expected on such an occasion. The gas was "a sort of yellowish-green"; the cop warned, "One side, there. Keep back, I tell you"; a voice shouts, "The darn thing's unscrewing." An example of the specificity of detail is the announcement

of Brigadier General Montgomery Smith: "I have been requested by the Governor of New Jersey to place the counties of Mercer and Middlesex as far west as Princeton, and east to Jamesburg, under martial law. No one will be permitted to enter this area except by special pass issued by state or military authorities. Four companies of State Militia are proceeding from Trenton to Grovers Mill and will aid in the evacuation of homes within the range of military operations."

The events reported proceeded from the relatively credible to the highly incredible. The first announcements were more or less believable, although unusual to be sure. First there is an "atmospheric disturbance," then "explosions of incandescent gas." A scientist then reports that his seismograph has registered a shock of earthquake intensity. This is followed by the discovery of a meteorite that has splintered nearby trees in its fall. So far so good.

But as the less credible bits of the story begin to enter, the clever dramatist also indicates that he, too, has difficulty in believing what he sees. When we learn that the object is no meteorite but a metal casing, we are also told that the whole picture is "a strange scene like something out of a modern Arabian Nights," "fantastic," that the "more daring souls are venturing near." Before we are informed that the end of the casing is beginning to unscrew, we experience the announcer's own astonishment: "Ladies and gentlemen, this is terrific!" When the top is off he says, "This is the most terrifying thing I have ever witnessed. . . . This is the most extraordinary experience. I can't find words. . . ."

The bewilderment of the listener is shared by the eye-witness. When the scientist is himself puzzled, the layman recognizes the extraordinary intelligence of the strange creatures. No explanation of the event can be provided. The resignation and hopelessness of the Secretary of the Interior, counseling us to "place our faith in God," provides no effective guide for action.

In spite of the realism of the broadcast, it would seem highly unlikely that any listener would take it seriously had he heard the announcements that were clearly made at the beginning of the hour. He might then have been excited, even frightened. But it would be an excitement based on the dramatic realism of the program. There would not be the intense feeling of personal involvement. He would know that the events were happening "out there" in the studio, not "right here" in his own state or his own county. In one instance a "correct" (esthetically detached or dramatic) standard of judgment would be used by the listener to interpret events, in another instance a "false" (realistic or news) standard of judgment would be employed. Tuning in late was a very essential condition for the arousal of a false standard of judgment. To be sure, many people recognized the broadcast as a play even though they tuned in late. It is important to raise and to answer the question of how anyone who tuned in at the beginning could have mistaken the clearly introduced play for a news broadcast. Analysis of these cases reveals two main reasons why such a misinterpretation arose. In the first place, many people who tuned in to hear a play by the Mercury Theatre thought the regular dramatic program had been interrupted to give special news bulletins. The technique was not a new one after their experience with radio reporting of the war crisis in September 1938. The other major reason for the misunderstanding is the widespread habit of not paying attention to the first announcements of a program. Some people do not listen attentively to their radios until they are aware that something of particular interest is being broadcast.

Tuning in late was very decisive in determining whether or not the listener would follow the program as a play or

as a news report. For the story of the Martian invasion was so realistic that misinterpretation was apt to arise without proper warning signals.

In spite of the fact that many persons tuned in late to hear this very realistic broadcast, by no means all of them believed it was news. And not all of those who thought the invasion was upon them behaved the same way in the face of danger. Before we can understand the reasons for the varying behavior, the reactions must be arranged in some significant grouping. Otherwise no fruitful conceptualization is possible.

Classifying the Listeners

1. Those Who Checked the Internal Evidence of the Broadcast. The persons in this category were those who did not remain frightened throughout the whole broadcast because they were able to discern that the program was fictitious. Some realized that the reports must be false because they sounded so much like certain fiction literature they were accustomed to.

"At first I was very interested in the fall of the meteor. It isn't often that they find a big one just when it falls. But *when it started to unscrew and monsters came out, I said to myself, 'They've taken one of those Amazing Stories and are acting it out.'* It just couldn't be real. It was just like some of the stories I read in *Amazing Stories* but it was even more exciting."

2. Those Who Checked the Broadcast against Other Information and Learned That It Was a Play. These listeners tried to orient themselves for the same reasons as those in the first group—they were suspicious of the "news" they were getting. Some simply thought the reports were too fantastic to believe; others detected the incredible speeds revealed; while a few listeners checked the program just because it seemed the reasonable thing to do. Their method of verifying their hunches was to compare the news on the program to some other information.

"I tuned in and heard that a meteor had fallen. Then when they talked about monsters, I thought something was wrong. *So I looked in the newspaper* to see what program was supposed to be on and discovered it was only a play."

3. Those Who Tried to Check the Program Against Other Information but Who, for Various Reasons, Continued to Believe the Broadcast Was an Authentic News Report. Two characteristic differences separated the people in this group from those who made successful checks. In the first place, it was difficult to determine from the interviews just why these people wanted to check anyway. They did not seem to be seeking evidence to test the authenticity of the reports. They appeared, rather, to be frightened souls trying to find out whether or not they were yet in any personal danger. In the second place, the type of checking behavior they used was singularly ineffective and unreliable. The most frequent method employed by almost two thirds of this group, was to look out the window or go outdoors. Several of them telephoned their friends or ran to consult their neighbors.

There are several reasons why the checks made by these persons were ineffectual. For some of them, the new information obtained only verified the interpretation which their already fixed standard of judgment provided.

"I looked out of the window and everything looked the same as usual *so I thought it hadn't reached our section yet.*"

"We looked out of the window and Wyoming Avenue was black with cars. *People were rushing away, I figured.*"

"No cars came down my street. *'Traffic is jammed on account of the roads being destroyed,' I thought.*"

4. Those Who Made No Attempt to Check the Broadcast or the Event. It is usually more difficult to discover why a

person did *not* do something than why he did. Consequently it is more difficult for us to explain why people in this group did not attempt to verify the news or look for signs of the Martians in their vicinity than it was to determine why those who attempted unsuccessful checks displayed their aimless behavior. Over half of the people in this group were so frightened that they either stopped listening, ran around in a frenzy, or exhibited behavior that can only be described as paralyzed.

Some of them reported that they were so frightened they never thought of checking.

"We were so intent upon listening that we didn't have enough sense to try other hook-ups—*we were just so frightened.*"

Others adopted an attitude of complete resignation. For them any attempt to check up, like any other behavior, appeared senseless.

"I was writing a history theme. The girl from upstairs came and made me go up to her place. Everybody was so excited I felt as if I was going crazy and kept on saying, 'what can we do, *what difference does it make* whether we die sooner or later?' We were holding each other. Everything seemed unimportant in the face of death. I was afraid to die, just kept on listening."

Some felt that in view of the crisis situation, action was demanded. A few prepared immediately for their escape or for death.

"I couldn't stand it so I turned it off. I don't remember when, but everything was coming closer. My husband wanted to put it back on but I told him *we'd better do something instead of just listen*, so we started to pack."

Some listeners interpreted the situation in such a way that they were not interested in making a check-up. In a few instances the individual tuned in so late that he missed the most incredible parts of the program and was only aware of the fact that some kind of conflict was being waged.

"I was in my drugstore and my brother phoned and said, 'Turn the radio on, a meteor has just fallen.' We did and heard gas was coming up South Street. There were a few customers and *we all began wondering where it could come from.* I was worried about the gas, it was spreading so rapidly but I was puzzled as to what was actually happening, when I heard airplanes I thought another country was attacking us."

Why the Panic?

A variety of influences and conditions are related to the panic resulting from this particular broadcast. We have found no single observable variable consistently related to the reaction, although a lack of critical ability seemed particularly conducive to fear in a large proportion of the population. Personality characteristics made some people especially susceptible to belief and fright; the influence of others in the immediate environment caused a few listeners to react inappropriately. The psychological pattern revealed by these and other influences must be shown if we are to understand the situation as a whole and not have to resort exclusively to the understanding of single, isolated cases.

Why the Suggestion Was or Was Not Believed

What is most inconceivable and therefore especially interesting psychologically is why so many people did not do something to verify the information they were receiving from their loudspeakers. The failure to do this accounts for the persistence of the fright. To understand any panic—whether the cause is a legitimate one or not—it is necessary to see precisely what happens to an individual's mental processes that prevents him from making an adequate check-up.

The persons who were frightened by the broadcast were, for this occasion at

least, highly suggestible, that is, they believed what they heard without making sufficient checks to prove to themselves that the broadcast was only a story. Those who were not frightened and those who believed the broadcast for only a short time were not suggestible—they were able to display what psychologists once called a "critical faculty." The problem is, then, to determine why some people are suggestible, or to state the problem differently, why some people lack critical ability.

There are essentially four psychological conditions that create in an individual the particular state of mind we know as suggestibility. All these may be described in terms of the concept of standard of judgment.

In the first place, individuals may refer a given stimulus to a standard or to several standards of judgment which they think are relevant for interpretation. The mental context into which the stimulus enters in this case is of such a character that it is welcomed as thoroughly consistent and without contradiction. A person with standards of judgment that enable him to "place" or "give meaning to" a stimulus in an almost automatic way finds nothing incongruous about such acceptance; his standards have led him to "expect" the possibility of such an occurrence.

We have found that many of the persons who did not even try to check the broadcast had preexisting mental sets that made the stimulus so understandable to them that they immediately accepted it as true. Highly religious people who believed that God willed and controlled the destinies of man were already furnished with a particular standard of judgment that would make an invasion of our planet and a destruction of its members merely an "act of God." This was particularly true if the religious frame of reference was of the eschatological variety providing the individual with definite attitudes or beliefs regarding the end of the world. Other people we found had been so influenced by the recent war scare that they believed an attack by a foreign power was imminent and an invasion—whether it was due to the Japanese, Hitler, or Martians—was not unlikely. Some persons had built up such fanciful notions of the possibilities of science that they could easily believe the powers of strange superscientists were being turned against them, perhaps merely for experimental purposes.

Whatever the cause for the genesis of the standards of judgment providing ready acceptance of the event, the fact remains that many persons already possessed a context within which they immediately placed the stimulus. None of their other existing standards of judgment was sufficiently relevant to engender disbelief. We found this to be particularly true of persons whose lack of opportunities or abilities to acquire information or training had insufficiently fortified them with pertinent standards of judgment that would make the interpretation of the broadcast as a play seem plausible. More highly educated people, we found, were better able to relate a given event to a standard of judgment they *knew* was an *appropriate* referent. In such instances, the knowledge itself was used as a standard of judgment to discount the information received in the broadcast. These listeners, then, had the ability to refer to relevant standards of judgment which they could rely on for checking purposes and therefore had no need of further orientation.

A second condition of suggestibility exists when an individual is not sure of the interpretation he should place on a given stimulus and when he lacks adequate standards of judgment to make a reliable check on his interpretation. In this situation the individual attempts to check on his information but fails for one of three reasons: (1) He may check his original information against unre-

liable data which may themselves be affected by the situation he is checking. We found that persons who checked unsuccessfully tended to check against information obtained from friends or neighbors. Obviously, such people were apt themselves to be tinged with doubt and hesitation which would only confirm early suspicions. (2) A person may rationalize his checking information according to the original hypothesis he is checking and which he thinks he has only tentatively accepted. Many listeners made hasty mental or behavioral checks but the false standard of judgment they had already accepted was so pervasive that their check-ups were rationalized as confirmatory evidence. For example, one woman said that the announcer's charred body was found too quickly but she "figured the announcer was excited and had made a mistake." A man noticed the incredible speeds but thought "they were relaying reports or something." Others turned to different stations but thought the broadcasters were deliberately trying to calm the people. A woman looked out of her window and saw a greenish eerie light which she thought was from the Martians. (3) In contrast to those who believe almost any check they make are the people who earnestly try to verify their information but do not have sufficiently well-grounded standards of judgment to determine whether or not their new sources of information are reliable.

A third and perhaps more general condition of suggestibility exists when an individual is confronted with a stimulus which he must interpret or which he would like to interpret and when *none* of his existing standards of judgment is adequate to the task. On such occasions the individual's mental context is unstructured, the stimulus does not fit any of his established categories and he seeks a standard that will suffice him. The less well structured is his mental context, the fewer meanings he is able to call forth, the less able will he be to understand the relationship between himself and the stimulus, and the greater will become his anxiety. And the more desperate his need for interpretation, the more likely will he be to accept the first interpretation given him. Many conditions existed to create in the individuals who listened to the invasion from Mars a chaotic mental universe that contained no stable standards of judgment by means of which the strange event reported could be evaluated. A lack of information and formal educational training had left many persons without any generalized standards of judgment applicable to this novel situation. And even if they did have a few such standards these were vague and tenuously held because they had not proved sufficient in the past to interpret other phenomena. This was especially true of those persons who had been most adversely affected by the conditions of the times.

The prolonged economic unrest and the consequent insecurity felt by many of the listeners was another cause for bewilderment. The depression had already lasted nearly ten years. People were still out of work. Why didn't somebody do something about it? Why didn't the experts find a solution? What was the cause of it anyway? Again, what would happen, no one could tell. Again a mysterious invasion fitted the pattern of the mysterious events of the decade. The lack of a sophisticated, relatively stable economic or political frame of reference created in many persons a psychological disequilibrium which made them seek a standard of judgment for this particular event. It was another phenomenon in the outside world beyond their control and comprehension. Other people possessed certain economic security and social status but wondered how long this would last with "things in such a turmoil." They, too, sought a stable interpretation, one that would at least give this new occurrence meaning

The war scare had left many persons in a state of complete bewilderment. They did not know what the trouble was all about or why the United States should be so concerned. The complex ideological, class, and national antagonisms responsible for the crisis were by no means fully comprehended. The situation was painfully serious and distressingly confused. What would happen, nobody could foresee. The Martian invasion was just another event reported over the radio. It was even more personally dangerous and no more enigmatic. No existing standards were available to judge its meaning or significance. But there was quick need for judgment and it was provided by the announcers, scientists, and authorities.

Persons with higher education, on the other hand, we found had acquired more generalized standards of judgment which they could put their faith in. The result was that many of them "knew" that the phenomenal speeds with which the announcers and soldiers moved was impossible even in this day and age. The greater the possibility of checking against a variety of reliable standards of judgment, the less suggestible will a person be. We found that some persons who in more normal circumstances might have had critical ability were so overwhelmed by their particular listening situation that their better judgment was suspended. This indicates that a highly consistent structuration of the external stimulus world may, at times, be experienced with sufficient intensity because of its personal implications to inhibit the operation of usually applicable internal structurations or standards of judgment. Other persons who may normally have exhibited critical ability were unable to do so in this situation because their own emotional insecurities and anxieties made them susceptible to suggestion when confronted with a personally dangerous circumstance. In such instances, the behavioral consequence is the same as for a person who has no standards of judgment to begin with, but the psychological processes underlying the behavior are different.

A fourth condition of suggestibility results when an individual not only lacks standards of judgment by means of which he may orient himself, but lacks even the realization that any interpretations are possible other than the one originally presented. He accepts as truth whatever he hears or reads without even thinking to compare it to other information.

Why Such Extreme Behavior?

Granted that some people believed the broadcast to be true, why did they become so hysterical? Why did they pray, telephone relatives, drive at dangerous speeds, cry, awaken sleeping children, and flee? Of all the possible modes of reaction they may have followed, why did these particular patterns emerge? The obvious answer is that this was a serious affair. As in all other panics, the individual believed his well-being, his safety, or his life was at stake. The situation was a real threat to him. Just what constitutes a personal threat to an individual must be briefly examined.

When an individual believes that a situation threatens him he means that it threatens not only his physical self but all of those things and people which he somehow regards as a part of him. This Ego of an individual is essentially composed of the many social and personal values *he* has accepted. *He* feels threatened if his investments are threatened, *he* feels insulted if his children or parents are insulted, *he* feels elated if his alma mater wins the sectional football cup. The particular pattern of values that have been introcepted by an individual will give him, then, a particular Ego. For some individuals this is expanded to include broad ideals and ambitions. *They* will be disturbed if a

particular race is persecuted in a distant country because that persecution runs counter to their ideal of human justice and democracy; *they* will be flattered if someone admires an idea of theirs or a painting they have completed.

A panic occurs when some highly cherished, rather commonly accepted value is threatened and when no certain elimination of the threat is in sight. The individual feels that he will be ruined, physically, financially, or socially. The invasion of the Martians was a direct threat to life, to other lives that one loved, as well as to all other cherished values. The Martians were destroying practically everything. The situation was, then, indeed a serious affair. Frustration resulted when no directed behavior seemed possible. One was faced with the alternative of resigning oneself and all of one's values to complete annihilation or of making a desperate effort to escape from the field of danger, or of appealing to some higher power or stronger person whom one vaguely thought could destroy the oncoming enemy.

If one assumed that destruction was inevitable, then certain limited behavior was possible: one could cry, make peace with one's Maker, gather one's loved ones around and perish. If one attempted escape, one could run to the house of friends, speed away in a car or train, or hide in some gas-proof, bomb-proof, out-of-the-way shelter. If one still believed that something or someone might repulse the enemy, one could appeal to God or seek protection from those who had protected one in the past. Objectively none of these modes of behavior was a direct attack on the problem at hand, nothing was done to remove the cause of the crisis. The behavior in a panic is characteristically undirected and, from the point of view of the situation at hand, functionally useless.

In short, the extreme behavior evoked by the broadcast was due to the enormous felt ego-involvement the situation created and to the complete inability of the individual to alleviate or control the consequences of the invasion. The coming of the Martians did not present a situation where the individual could preserve one value if he sacrificed another. It was not a matter of saving one's country by giving one's life, of helping to usher in a new religion by self-denial, of risking the thief's bullet to save the family silver. In this situation the individual stood to lose *all* his values at once. Nothing could be done to save *any* of them. Panic was inescapable. The false standard of judgment used by the individual to interpret the broadcast was not itself the motivational cause of the behavior but it was absolutely essential in arousing the needs and values which may be regarded as the sources of the actions exhibited. A false standard of judgment aroused by the broadcast and causing the individual to be disturbed had its roots in values which were a part of the Ego.

2.

INDIVIDUAL AND MASS BEHAVIOR IN EXTREME SITUATIONS *By Bruno Bettelheim*

The author spent the year 1938–39 in the two German concentration camps at Dachau and at Buchenwald. In these camps the prisoners were deliberately tortured; they suffered from extreme malnutrition but had to perform hard

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labor. Every single moment of their lives was strictly regulated and supervised. The prisoners did not know why they were imprisoned nor for how long. This may explain why the prisoners were persons finding themselves in an "extreme" situation.

The acts of terror committed in these camps aroused in the minds of civilized persons justified emotions which lead them to overlook that terror was used by the Gestapo only as a means for attaining certain ends. The results which the Gestapo tried to obtain by means of the camps were varied; among them were: *to break the prisoners as individuals* and to change them into docile masses from which no individual or group act of resistance could arise; *to spread terror among the rest of the population* by using the prisoners as hostages and by demonstrating what happens to those who oppose the Nazi rulers; *to provide the Gestapo members with a training ground* in which they were educated to lose all human emotions; *to provide the Gestapo with an experimental laboratory* in which to study the effective means for breaking civilian resistance, the minimum food requirements needed to keep prisoners able to perform hard labor when the threat of punishment takes the place of other incentives, and the influence on performance if the prisoners are separated from their families.

In this short paper, an effort is made to deal with *the concentration camp as a means of producing changes in the prisoners which will make them more useful subjects of the Nazi state.*

These changes were produced by exposing the prisoners to extreme situations which forced them to adapt themselves entirely and with the greatest speed. This adaptation produced interesting types of private, individual, and mass behavior. "Private" behavior originates in a subject's particular background and personality, rather than in the experiences to which the Gestapo exposed him, although they were instrumental in bringing it about. "Individual" behavior is developed by individuals independently of one another, although it is the result of experiences common to all prisoners. "Mass" behavior were those phenomena which could be observed *only* in a group of prisoners when functioning as a mass. Although these three types of behavior were overlapping, the subdivision seems advisable. The discussion is restricted mainly to individual and mass behavior. One example of private behavior is discussed below.

The purpose of changing the prisoners into useful subjects of the Nazi state was attained by exposing them to extreme situations. During this process different stages could be recognized. The first of them centered around *the initial shock of finding oneself unlawfully imprisoned.* The main event of the second stage was *the transportation into the camp and the first experiences in it.* Next was a slow process of change in the prisoner's life and personality; *the adaptation to the camp situation.* The final stage was reached when *the prisoner had adapted himself to the camp;* it was characterized by a definitely changed attitude to, and evaluation of, the Gestapo.

Why the Material Was Collected

Before discussing these stages of a prisoner's development a few remarks on *why the material was collected* seems advisable. This study was a mechanism developed by the author *ad hoc* in order to retain some intellectual interests and thus be better equipped to endure life in the camp. His observing and collecting of data was a particular type of defense, individually developed, not enforced by the Gestapo, and based on his training and interests. It was developed to protect him against a disintegration of his personality. It is an example of private

behavior. Private behaviors follow characteristically the individual's former life interests.

Since it is the only example of a *private behavior* presented in the paper, how it developed deserves mention. During the first days in the camp, the writer realized that he behaved differently from the way he used to. He observed, for instance, the split in his person into one who observes and one to whom things happen, a typical psychopathological phenomenon. He also observed that his fellow prisoners, who had been normal persons, now behaved like pathological liars, were unable to restrain themselves and to make objective evaluations. Thus the question arose, "How can I protect myself against disintegration?" The answer was: to find out what changes occurred in the prisoners and why they took place. By occupying myself with interviewing prisoners, by pondering my findings while forced to perform exhausting labor, I succeeded in killing the time in a way which seemed constructive. As time went on, the enhancement of my self-respect due to my ability to continue to do meaningful work despite the contrary efforts of the Gestapo became even more important than the pastime.

The Initial Shock

The initial psychological shock of being unlawfully locked into a prison may be separated from the shock originating in the torture to which the prisoners were exposed. The prisoners' reactions on being brought into prison can best be analyzed on the basis of two categories: their socio-economic class and their political education. These categories can be separated only for the purposes of presentation.

The *politically educated prisoners* sought support for their self-esteem in the fact that the Gestapo had singled them out as important enough to take revenge on. In their imprisonment they saw a demonstration of how dangerous for Nazis their former activities had been.

The *nonpolitical middle-class prisoners* were a small minority among the prisoners. They were least able to withstand the initial shock. They found themselves utterly unable to comprehend what happened to them. In their behavior became apparent the dilemma of the politically uneducated German middle classes when confronted with the phenomenon of National Socialism. They had no consistent philosophy which would protect their integrity as human beings. They had obeyed the law handed down by the ruling classes without questioning its wisdom. And now the law-enforcing agencies turned against them, who always had been their stanchest supporters. They could not question the wisdom of law and police. Therefore what was wrong was that *they* were made objects of a persecution which in itself *must* be right, since it was carried out by the authorities. Thus they were convinced that it must be a "mistake."

These prisoners resented most to be treated "like ordinary criminals." After some time they could not help realizing their actual situation. Then they disintegrated. Suicides were practically confined to this group. Later on, they were the ones who behaved in an antisocial way; they cheated their fellow prisoners; a few turned spies. They lost their middle-class sense of propriety and their self-respect; they became shiftless and disintegrated as autonomous persons.

Members of *the upper classes* segregated themselves as much as possible. They seemed unable to accept what was happening to them. They expressed their conviction that they would be released within the shortest time because of their importance. This conviction was absent among the middle-class prisoners. Upper-class prisoners remained aloof even from the upper classes. They looked down on all other prisoners nearly as

much as they despised the Gestapo. In order to endure life in the camp they developed such a feeling of superiority that nothing could touch them.

The *political prisoners* used another psychological mechanism at a later time, which might already have played some part in the initial development. It seems that many political leaders had some guilt-feeling that they had fallen down on the job of preventing the rise of Nazi power. This guilt-feeling was relieved to a considerable degree by the fact that the Nazis found them important enough to bother with. It might be that prisoners managed to endure living in the camp because their punishment freed them from their guilt-feeling. Indications are found in remarks with which prisoners responded when reprimanded for undesirable behavior. They asserted that one cannot behave normally when living under such circumstances and that after liberation they would again act in civilized ways.

Thus it seems that most prisoners tried to protect themselves against the initial shock by mustering forces helpful in supporting their badly shaken self-esteem. Those groups which found in their past life some basis for the erection of such a buttress to their endangered egos seemed to succeed.

The Transportation into the Camp and the First Experiences in It

During the transportation into the camp, the prisoners were exposed to constant tortures. Corporal punishment intermingled with shooting and wounding with the bayonet alternated with tortures the goal of which was extreme exhaustion. For instance, the prisoners were forced to stare into glaring lights or to kneel for hours. Several were killed; the injured were not permitted to take care of their wounds. The guards also forced the prisoners to hit one another, and to defile their most cherished values. They were forced to curse their God, to accuse themselves of vile actions and their wives of prostitution. This continued for many hours. The purpose of the tortures was to break the resistance of the prisoners, and to assure the guards that they were superior.

It is difficult to ascertain what happened in the minds of the prisoners while they were exposed to this treatment. Most of them became so exhausted that they were only partly conscious of what happened. In general, prisoners did not like to talk about what they had felt and thought during the time of torture. The few who volunteered information made vague statements which sounded like devious rationalizations, invented for justifying that they had endured treatment injurious to their self-respect without trying to fight back. The few who had tried to fight back could not be interviewed; they were dead.

The writer recalls his extreme weariness, resulting from a bayonet wound and a heavy blow on the head. He recalls, nevertheless, his thoughts and emotions. He wondered that man can endure so much without committing suicide or going insane; that the guards tortured prisoners in the way it had been described in books on the concentration camps; that the Gestapo was so simple-minded as to enjoy forcing prisoners to defile themselves. It seems that he gained emotional strength from the following facts: that things happened according to expectation; that, therefore, his future in the camp was at least partly predictable from what he already was experiencing and from what he had read; and that the Gestapo was more stupid than he had expected. He felt pleased that the tortures did not change his ability to think or his general point of view. In retrospect these considerations seem futile, but they ought to be mentioned because, if asked to sum up what was his main problem during the time he spent in the camp, he would say: *to safeguard his ego in such a way, that, if he should regain liberty, he*

would be approximately the same person he was when deprived of liberty.

The writer feels that he was able to endure the transportation and what followed, because he convinced himself that these horrible and degrading experiences somehow did not happen to "him" as a subject, but only to "him" as an object. The importance of this attitude was corroborated by statements of other prisoners. They couched their feelings usually in such terms as, "The main problem is to remain alive and unchanged." What should remain unchanged was individually different and roughly covered the person's general attitudes and values.

The author's thoughts and emotions during the transportation were extremely detached. It was as if he watched things happening in which he only vaguely participated. Later he learned that many prisoners developed this same feeling of detachment, as if what happened really did not matter to oneself. It was strangely mixed with a conviction that "this cannot be true, such things do not happen." Not only during the transportation but all through the time spent in camp, the prisoners had to convince themselves that this was real and not just a nightmare. They were never wholly successful. The feeling of detachment which rejected the reality of the situation might be considered a mechanism safeguarding the integrity of the prisoners' personalities. They behaved in the camp as if their life there could have no connection with their "real" life. Their evaluation of their own and other persons' behavior differed from what it would have been outside of camp. The separation of behavior patterns and schemes of values inside and outside of camp was so strong that it could hardly be touched in conversation; it was one of the many "taboos" not to be discussed. The prisoners felt that what they were doing at camp and what happened to them there did not count; everything was permissible as long as it contributed to helping them to survive.

During the transportation no prisoner fainted. To faint meant to get killed. In this particular situation fainting was not protective against intolerable pain; it endangered a prisoner's existence because anyone unable to follow orders was killed.

The Adaptation to the Camp Situation

Differences in the Response to Extreme and to Suffering Experiences. It seems that camp experiences which remained within the normal frame of reference of a prisoner's life experience were mastered by normal psychological mechanisms. For mastering experience which transcended this frame of reference, new psychological mechanisms were needed. The transportation was only one of the experiences transcending the normal frame of reference and the reaction to it may be described as "unforgettable, but unreal."

Attitudes similar to those developed toward the transportation could be observed in other extreme situations. On a terribly cold winter night, all prisoners were forced to stand at attention without overcoats for hours. They were threatened with having to stand all through the night. After about 20 prisoners had died from exposure the threats of the guards became ineffective. To be exposed to the weather was a terrible torture; to see one's friends die without being able to help, and to stand a good chance of dying, created a situation similar to the transportation. Open resistance was impossible. A feeling of utter indifference swept the prisoners. They did not care whether the guards shot them; they were indifferent to acts of torture committed by the guards. It was as if what happened did not "really" happen to oneself. There was again the split between the "me" to whom it happened, and the

"me" who really did not care and was a detached observer.

After more than 80 prisoners had died, and several hundred had their extremities so badly frozen that they had later to be amputated, the prisoners were permitted to return to the barracks. They were completely exhausted, but did not experience the feeling of happiness which some had expected. They felt relieved that the torture was over, but felt at the same time that they no longer were free from fear.

The psychological reactions to events which were within the sphere of the normally comprehensible were different from those to extreme events. Prisoners dealt with less extreme events in the same way as if they had happened outside of the camp. A slap in one's face was embarrassing, and not to be discussed. One hated the individual guards who kicked, slapped, or abused much more than the guard who wounded one seriously. In the latter case one hated the Gestapo as such, but not the individual inflicting the punishment. This differentiation was unreasonable, but inescapable. One felt deeper and more violent aggressions against particular Gestapo members who had committed minor vile acts than one felt against those who had acted in a more terrible fashion. Thus it seems that experiences which might have happened during the prisoner's "normal" life history provoked a "normal" reaction. Prisoners seemed particularly sensitive to punishments similar to those which a parent might inflict on his child. To punish a child was within their "normal" frame of reference, but that they should be the object of punishment destroyed their adult frame of reference. So they reacted to it not in an adult, but in a childish way—with shame and violent, impotent, unmanageable emotions directed, not against the system, but against the person inflicting the punishment. It seems that if a prisoner was cursed, slapped, pushed around "like a child" and if he was, like a child, unable to defend himself, this revived in him behavior patterns and psychological mechanisms which he had developed in childhood. He was unable to see his treatment in its general context. He swore that he was going "to get even," well knowing that this was impossible. He could not develop an objective evaluation which would have led him to consider his suffering as minor when compared with other experiences. The prisoners as a group developed the same attitude to minor sufferings; they did not offer help and blamed the prisoner for not having made the right reply, for letting himself get caught, in short, accused him of behaving like a child. So the degradation of the prisoner took place not only in his mind, but also in the minds of his fellow prisoners. This attitude extended to details. A prisoner did not resent being cursed by the guards during an extreme experience, but was ashamed of it when it occurred during some minor mistreatment. As time went on the difference in the reaction to minor and major sufferings slowly disappeared. This change in reaction was only one of many differences between old and new prisoners.

Differences in the Psychological Attitudes of Old and New Prisoners. In the following discussion the term "new prisoners" designates those who had not spent more than one year in the camp; "old" prisoners are those who have spent at least three years in the camp.

All the emotional efforts of the new prisoners seemed to be directed toward returning to the outer world as the same persons who had left it. Old prisoners seemed mainly concerned with the problem of how to live well within the camp. Once they had reached this attitude, everything that happened to them, even the worst atrocity, was "real" to them. No longer was there a split between one to whom things happened and the one who observed them. When they reached

this stage the prisoners were afraid of returning to the outer world. Moreover, they then hardly believed they would ever return to it. They seemed aware that they had adapted themselves to the life in the camp and that this process was coexistent with a basic change in their personality. There was considerable variation among individuals in the time it took them to make their peace with the idea of having to spend the rest of their lives in the camp. How long it took a prisoner to cease to consider life outside the camp as real depended to a great extent on the strength of his emotional ties to his family and friends. Some of the indications for the changed attitude were: scheming to find a better place in the camp rather than trying to contact the outer world, avoiding speculation about one's family or world affairs, concentrating all interest on events taking place inside of the camp. Some of the old prisoners admitted that they no longer could visualize themselves living outside the camp, making free decisions, taking care of themselves and their families. Other differences between old and new prisoners could be recognized in their hopes for their future lives, in the degree to which they regressed to infantile behavior, and in many other ways.

Changes in Attitudes toward One's Family and Friends. The new prisoners received most signs of attention. Their families were trying everything to free them. Nevertheless, they accused them of not doing enough, of betraying them. They would weep over a letter telling of the efforts to liberate them, but curse in the next moment when learning that some of their property had been sold without their permission. Even the smallest change in their former private world attained tremendous importance. This ambivalence seemed due to their desire to return exactly the person who had left. Therefore they feared any change, however trifling, in their former situation. Their worldly possessions should be secure and untouched, although they were of no use to them at this moment.

It is difficult to say whether the desire that everything remain unchanged was due to their realization of how difficult it might be to adjust to an entirely changed home situation or to some sort of magical thinking running along the following lines: If nothing changes in the world in which I used to live, then I shall not change, either. In this way they might have tried to counteract their feeling that they were changing. The violent reaction against changes in their families was then the counterpart of the realization that they were changing. What enraged them was probably not only the fact of the change, but also the change in their status within the family which it implied. Their families had been dependent on them for decisions, now they were dependent. The only chance they saw for becoming again the head of the family was that the family structure remain untouched despite their absence. The question arises as to how they could blame their families for changes which occurred in them, and whose cause they were. It might be that the prisoners took so much punishment that they could not accept any blame. They felt that they had atoned for any past shortcomings in their relations to their families and friends, and for any changes which might occur in them. Thus they felt free to hate other people, even their own families, for their defects.

The feeling of having atoned for all guilt had some real foundation. When the concentration camps were established the Nazis detained in them their more prominent foes. Soon there were no more prominent enemies left. Still, an institution was needed to threaten the opponents of the system. Many Germans were dissatisfied with the system. To imprison all of them would have interrupted the functioning of the industrial

production. Therefore, if a group of the population got fed up with the Nazi regime, a selected few members of the group were brought into the concentration camp. If lawyers, for instance, became restless, a few hundred lawyers were sent to the camp. The Gestapo called such group punishments "actions." During the first of them only the leaders of the opposing group were punished. That led to the feeling that to belong to a rebellious group as a member only was not dangerous. Soon the Gestapo revised its system and punished a cross section of the different strata of the group. This procedure had not only the advantage of spreading terror among all members of the group, but made it possible to destroy the group without necessarily touching the leader if that was for some reason inopportune. Though prisoners were never told why they were imprisoned, those imprisoned as representatives of a group came to know it. Prisoners were interviewed by the Gestapo to gain information about their friends. During these interviews prisoners were told that if their fate did not teach the group to behave better they would get a chance to meet them in the camp. So the prisoners rightly felt that they were atoning for the rest of the group.

Old prisoners did not like to be reminded of their families and former friends. When they spoke about them, it was in a very detached way. A contributing factor was the prisoners' hatred of all those living outside of the camp, who "enjoyed life as if we were not rotting away." The outside world which continued to live as if nothing had happened was in the minds of the prisoners represented by those whom they used to know, namely, by their relatives and friends. But even this hatred was subdued in the old prisoners. It seemed that, as much as they had forgotten to love their kin, they had lost the ability to hate them. *They had learned to direct a great amount of aggression against themselves so as not to get into too many conflicts with the Gestapo, while the new prisoners still directed their aggressions against the outer world, and—when not supervised—against the Gestapo.* Since the old prisoners did not show much emotion either way, they were unable to feel strongly about anybody.

Old prisoners did not like to mention their former social status; new prisoners were rather boastful about it. New prisoners seemed to back their self-esteem by letting others know how important they had been. Old prisoners seemed to have accepted their state of dejection, and to compare it with their former splendor was probably too depressing.

Hopes about Life after Liberation. Closely connected with the prisoners' attitudes toward their families were their hopes concerning their life after release from camp. Here they embarked a great deal on individual and group daydreams. To indulge in them was one of the favorite pastimes if the general emotional climate in the camp was not too depressed. There was a marked difference between the daydreams of the new and the old prisoners. *The longer the time a prisoner had spent in camp, the less true to reality were his daydreams;* so much so that the hopes and expectations of the old prisoners often took the form of eschatological or messianic hopes. They were convinced that out of the coming world war and world revolution they would emerge as the future leaders of Germany at least, if not of the world. This was the least to which their sufferings entitled them. These grandiose expectations were coexistent with great vagueness as to their future private lives. In their daydreams they were certain to emerge as the future secretaries of state, but they were less certain whether they would continue to live with their wives and children. Part of these daydreams may be explained by the fact that they seemed to feel that only a high public

position could help them to regain their standing within their families.

The hopes and expectations of the new prisoners were truer to reality. Despite their open ambivalence about their families, they never doubted that they were going to continue to live with them. They hoped to continue their public and professional lives in the same way as they used to.

Regression into Infantile Behavior. Most of the adaptations to the camp situation mentioned so far were more or less individual behaviors. The regression to infantile behavior was a mass phenomenon. It would not have taken place if it had not happened in all prisoners. The prisoners did not interfere with another's daydreams or his attitudes to his family, but they asserted their power as a group over those who objected to deviations from normal adult behavior. Those who did not develop a childlike dependency on the guards were accused of threatening the security of the group, an accusation which was not without foundation, since the Gestapo punished the group for the misbehavior of the individual. The regression into childlike behavior was more inescapable than other types of behavior imposed on the individual by the impact of the conditions in the camp.

The prisoners developed types of behavior characteristic of infancy or early youth. Some of them have been discussed, such as ambivalence to one's family, despondency, finding satisfaction in daydreaming rather than in action. During the transportation the prisoners were tortured in a way in which a cruel and domineering father might torture a helpless child; at the camp they were also debased by techniques which went much further into childhood situations. They were forced to soil themselves. Their defecation was strictly regulated. Prisoners who needed to eliminate had to obtain the permission of the guard. It seemed as if the education to cleanliness would be once more repeated. It gave pleasure to the guards to hold the power of granting or withholding the permission to visit the latrines. This pleasure found its counterpart in the pleasure the prisoners derived from visiting them, because there they could rest for a moment, secure from the whips of the overseers.

The prisoners were forced to say "thou" to one another, which in Germany is indiscriminately used only among small children. They were not permitted to address one another with the many titles to which middle- and upper-class Germans are accustomed. On the other hand, they had to address the guards in the most deferential manner, giving them all their titles.

The prisoners lived, like children, only in the immediate present; they lost the feeling for the sequence of time; they became unable to plan for the future or to give up immediate pleasure satisfactions to gain greater ones in the near future. They were unable to establish durable object-relations. Friendships developed as quickly as they broke up. Prisoners would, like adolescents, fight one another tooth and nail, only to become close friends within a few minutes. They were boastful, telling tales about what they had accomplished in their former lives, or how they succeeded in cheating guards. Like children they felt not at all set back or ashamed when it became known that they had lied about their prowess.

Another factor contributing to the regression into childhood behavior was the work the prisoners were forced to perform. Prisoners were forced to perform nonsensical tasks, such as carrying heavy rocks from one place to another, and back to the place where they had picked them up. They were forced to dig holes in the ground with their bare hands, although tools were available. They felt debased when forced to perform "childish" and stupid labor, and

preferred even harder work when it produced something that might be considered useful. There seems to be no doubt that the tasks they performed, as well as the mistreatment by the Gestapo which they had to endure, contributed to their disintegration as adult persons.

The Final Adjustment to the Life in the Camp

A prisoner had reached the final stage of adjustment to the camp situation when he changed his personality so as to accept as his own the values of the Gestapo. A few examples may illustrate this.

The prisoners suffered from the steady interference with their privacy on the part of the guards and other prisoners. So a great amount of aggression accumulated. In new prisoners it vented itself in the way it might have done in the world outside the camp. But slowly prisoners accepted, as expression of their verbal aggressions, terms which definitely were taken over from the vocabulary of the Gestapo. From copying the verbal aggressions of the Gestapo to copying their form of bodily aggressions was one more step, but it took several years to make it. Old prisoners, when in charge of others, often behaved worse than the Gestapo because they considered this the best way to behave toward prisoners in the camp.

Most old prisoners took over the Gestapo's attitude toward the so-called unfit prisoners. Newcomers presented difficult problems. Their complaints about life in camp added new strain to the life in the barracks; so did their inability to adjust to it. Bad behavior in the labor gang endangered the whole group. Thus newcomers who did not stand up well under the strain tended to become a liability for the other prisoners. Moreover, weaklings were those most apt eventually to turn traitors. Therefore old prisoners were sometimes instrumental in getting rid of the unfit, thus shaping their own behavior in the image of Gestapo ideology. This was only one of the many situations in which old prisoners molded their way of treating other prisoners according to the example set by the Gestapo. Another was the treatment of traitors. Self-protection asked for their destruction, but the way in which they were tortured for days and slowly killed was copied from the Gestapo.

Old prisoners tended to identify with the Gestapo not only in respect to aggressive behavior. They tried to arrogate to themselves old pieces of Gestapo uniforms. If that was not possible, they tried to sew and mend their uniforms so that they would resemble those of the guards. When asked why they did it they admitted that they loved to look like one of the guards.

The satisfaction with which old prisoners boasted that, during the twice daily counting of the prisoners, they had stood well at attention can be explained only by their having accepted as their own the values of the Gestapo. Prisoners prided themselves on being as tough as the Gestapo members. This identification with their torturers went so far as copying their leisure-time activities. One of the games played by the guards was to find out who could stand to be hit longest without uttering a complaint. This game was copied by old prisoners.

Often the Gestapo would enforce nonsensical rules, originating in the whims of one of the guards. They were usually forgotten as soon as formulated, but there were always some old prisoners who would continue to follow these rules and try to enforce them on others long after the Gestapo had forgotten about them. These prisoners firmly believed that the rules set down by the Gestapo were desirable standards of human behavior, at least in the camp situation. Other areas in which prisoners made their peace with the values of the Gestapo included the race problem, although race discrimination had been

alien to their previous scheme of values.

Among the old prisoners one could observe other developments which indicated their desire to accept the Gestapo along lines which definitely could not originate in propaganda. It seems that, since they returned to a childlike attitude toward the Gestapo, they had a desire that at least some of those whom they accepted as all-powerful father-images should be just and kind. They divided their positive and negative feelings—strange as it may be, they had positive feelings—toward the Gestapo in such a way that all positive emotions were concentrated on a few officers who were high up in the hierarchy of camp administrators, but hardly ever on the governor of the camp. They insisted that these officers hid behind their rough surfaces a feeling of justice and propriety; they were supposed to be genuinely interested in the prisoners and even trying, in a small way, to help them. Since these supposed feelings never became apparent, it was explained that they hid them effectively because otherwise they would not be able to help the prisoners. For instance, a whole legend was woven around the fact that of two officers inspecting a barrack one had cleaned his shoes before entering. He probably did it automatically, but it was interpreted as a rebuff to the other officer and a clear demonstration of how he felt about the concentration camp.

After so much has been said about the old prisoners' tendency to identify with the Gestapo, it ought to be stressed that this was only part of the picture. Old prisoners who identified with the Gestapo at other moments also defied it, demonstrating extraordinary courage in doing so.

Summary

The concentration camp had an importance reaching far beyond its being a place where the Gestapo took revenge on its enemies. It was the training ground for young Gestapo soldiers who were planning to rule Germany and all conquered nations; it was the Gestapo's laboratory for developing methods for changing free citizens into serfs who in many respects accept their masters' values while they still thought that they were following their own life goals and values. The system was too strong for an individual to break its hold over his emotional life, particularly if he found himself within a group which had more or less accepted the Nazi system. It seemed easier to resist the pressure of the Gestapo if one functioned as an individual; the Gestapo knew it and therefore insisted on forcing all individuals into groups which they supervised. The Gestapo's main goal was to produce in the subjects childlike attitudes and childlike dependency on the will of the leaders.

3.

THE "PHANTOM ANESTHETIST" OF MATTOON: A FIELD STUDY OF MASS HYSTERIA

By Donald M. Johnson

The story of the "phantom anesthetist" begins in Mattoon, Illinois, on the first night of September 1944 when a woman reported to the police that someone had opened her bedroom window and sprayed her with a sickish sweet-smelling gas which partially paralyzed her legs and made her ill. Soon other cases with similar symptoms were reported, and the police organized a full-scale effort to catch the "gasser." Some of the Mattoon citizens armed themselves with shotguns and sat on their doorsteps to wait for him; some even claimed that they caught a glimpse of him and heard him pumping his spray gun. As the number of cases increased—as many as seven in one night—and the facilities of the local police seemed inadequate to the size of the task, the state police with radio-equipped squad cars were called in, and scientific crime detection experts went to work, analyzing stray rags for gaseous chemicals and checking the records of patients recently released from state institutions. Before long the "phantom anesthetist" of Mattoon had appeared in newspapers all over the United States, and Mattoon servicemen in New Guinea and India were writing home anxiously inquiring about their wives and mothers. After ten days of such excitement, when all victims had recovered and no substantial clews had been found, the police began to talk of "imagination" and some of the newspapers ran columns on "mass hysteria"; the episode of the "phantom anesthetist" was over.

Journalistically the story died in a few weeks. In the police records the last attack was reported on September 12. Scientifically, however, the episode demands attention as a fascinating psychological phenomenon. Only one case of a "mental epidemic" has been reported in recent years: an outburst of hysterical twitching in a Louisiana high school was described by Schuler and Parenton.[1] They were unable to find any reference in the standard sources to hysterical epidemics in the United States for over forty years, and they raise the question whether these phenomena are disappearing. The writer, therefore, undertook an investigation of the Mattoon case, with two general aims: (1) to preserve, for the sake of the record, an accurate account of the events, and (2) to attempt an analysis of the psychological factors involved in these events. The investigation consisted chiefly of an analysis of the records in the Police Department and interviews with those who reported physical symptoms from the gas. The study was begun in the middle of September and continued until the end of the year, but most of the interviewing was done in October. All the work was done by the writer, who assumes responsibility for this report.

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[1] E. A. Schuler and V. J. Parenton, "A Recent Epidemic of Hysteria in a Louisiana High School," *J. Soc. Psychol.*, 1943, XVII, 221–235.

The Facts of the Case

Mattoon is a small Illinois city, located about 50 miles southeast of the center of the state. The population, according to the 1940 census, was 15,827, of which 98 percent were native-born white. It is surrounded by rather prosperous farm land, and its economy is largely determined by this fact. In addition, it is a junction for the Illinois Central and the New York Central railroads, both of which maintain repair shops at this point. There are a few small industries, a shoe factory, a furniture factory, Diesel engine works, a foundry, and the like. All in all it is a fairly typical midwestern city. As a result of the war it has enjoyed a mild boom, but not an upsetting one.

The outlines of the story can be quickly set down as a background for discussion of specific questions. On September 1 about midnight Mrs. A had a friend telephone the police that she and her daughter had been gassed. The police found no signs of an intruder, but Mr. A reported that, when he came home about two hours later, he saw a man run from the window. The police were called again, and again they found nothing. The next evening the Mattoon *Daily Journal-Gazette* carried a front-page story on the "gas attack" and a headline: "ANESTHETIC PROWLER ON LOOSE."

On the following day, Sunday the third, Mr. B reported to the police that he and his wife had had a similar occurrence. In the middle of the night of August 31—the night before Mrs. A's attack—he woke up sick, and retched, and asked his wife if the gas had been left on. When she woke up she was unable to walk. At first they had attributed these symptoms to hot dogs eaten the evening before. About the same time Mr. C, who works nights, told the press that his wife and daughter had likewise been attacked. The daughter woke up coughing and, when Mrs. C got up to take care of her, she could hardly walk. They did not suspect gas until they read the papers next day. These two accounts appeared in the Mattoon paper on September 5, since no paper was printed on Sunday the third or Labor Day the fourth.

On the evening of September 5 two new attacks were recorded. Mrs. D came home with her husband about 10:30, picked up a cloth from the porch, smelled it, and reported that the fumes burned her mouth and lips so badly that they bled. Mr. E, who works nights, reported that his wife heard someone at the bedroom window, smelled gas, and was partially paralyzed by it.

On the sixth three more cases occurred, according to the police records. On the seventh, none; on the eighth, four; on the ninth, five; and on the tenth, seven. This apparently was the climax of the affair, for no cases were reported on the eleventh, only one on the twelfth, and none thereafter.

The symptoms reported were nausea and vomiting, palpitations, paralysis of the legs, dryness of the mouth and throat and, in one case at least, burns about the mouth. All cases recovered rapidly, hence there was little possibility for outside check on the symptoms. Four cases were seen by physicians, who diagnosed all cases as hysteria.

In at least three cases, so the testimony goes, the family dog "must have been gassed also" since he did not bark at the intruder.

Those who reported smelling the gas described it as "a musty smell," "sickish," "like gardenias," or "like cheap perfume." In some cases, though symptoms were reported, the gas was not smelled.

Police activity took several directions. Most important, probably, was the attempt to catch the "mad gasser" *in flagrante delicto*. The police answered all telephone calls as soon as possible and, when the state police came into the pic-

ture with modern radio equipment, were often able to surround a house, in the words of the Commissioner of Police, "before the phone was back on the hook." Despite all this and despite the amateur efforts of an excited citizenry, no one was ever apprehended "in the act." Less direct procedures revolved around examination of a few objects found near houses where attacks had been reported, particularly chemical analysis of the cloth found by Mrs. D, and the usual round-up of suspicious characters. The results of these attempts were also negative. On the eleventh the Commissioner of Police put a note in the paper requesting that "roving bands of men and boys should disband," and that guns be put away "because some innocent person may get killed." About the same time the police adopted the policy of having the victims sent to a hospital for examination.

GAS OR HYSTERIA?

Obviously something extraordinary took place in Mattoon, and for its explanation two hypotheses have been advanced. The "gasser" hypothesis asserts that the symptoms were produced by a gas which was sprayed on the victims by some ingenious fiend who has been able to elude the police. This explanation was disseminated by newspapers throughout the country, at the beginning of the episode at least, and it is widely believed in Mattoon at present. The alternative hypothesis is that the symptoms were due to hysteria.

The evidence for the "gasser" hypothesis comes from the reports of the victims concerning their symptoms, reports which are notoriously difficult to check. The fact that vomiting did occur was authenticated in a few cases by outside testimony but, since vomiting could be produced by gas or hysteria or dietary indiscretions, this fact is not crucial. There is plenty of evidence from the police and other observers that the victims were emotionally upset by their experiences, but this too is not a crucial point.

Another difficulty with the "gasser" hypothesis is the self-contradictory demands it makes on the gas. In order to produce effects of the kind reported when sprayed through a window it would have to be a very potent stable anesthetic with rapid action, and at the same time so unstable that it would not affect others in the same room. It would have to be strong enough to produce vomiting and paralysis, and yet leave no observable aftereffects. Study of a standard source on anesthetics and war gases [2] and consultation with medical and chemical colleagues at the University of Illinois indicates that the existence of such a gas is highly improbable. Chemists are extremely skeptical of the possibility that such an extraordinary gas could be produced by some "mad genius" working in a basement.

Several people reported seeing a prowler who might be the "anesthetist." This too is not an important matter since prowlers have been reported to the police in Mattoon once or twice a week for several years. And, of course, prowlers do not produce paralysis or dry throats.

A minor weakness in the gas hypothesis is the lack of a motive. No money was stolen, and the circumstances were such that there would be little gratification for a peeper.

The best evidence for the hysteria hypothesis is the nature of the symptoms and the fact that those cases seen by physicians—though there were only four—were diagnosed as hysteria. All symptoms reported are common in hysteria and can be found in the medical literature for many years back. For

[2] L. Goodman and A. Gilman, *The Pharmacological Basis of Therapeutics* (New York: The Macmillan Co., 1940).

example, here is a description of a mild hysterical attack dated about a hundred years ago. Janet [3] quotes it from Briquet:

> I choose, for an example, what happens to a woman somewhat impressionable who experiences a quick and lively emotion. She instantly feels a constriction at the epigastrium; experiences oppression, her heart palpitates, something rises in her throat and chokes her; in short, she feels in all her limbs a discomfort which causes them in a way to drop; or else it is an agitation, a necessity for movement, which causes a contraction of the muscles. This is indeed the exact model of the most common hysterical accident, of the most ordinary hysterical spasm.

The hypothesis of hysteria accounts for the rapid recovery of all victims and the lack of aftereffects. It explains why no "gasser" was found in spite of mobilization of local and state police and volunteers. It accounts for the fact that nothing was stolen and that dogs did not bark. The objections to the hypothesis of hysteria come from the victims themselves—quite naturally—and from others who do not realize the intensity and variety of effects which are produced by psychological forces.

Some who like compromises may argue that these two explanations are not exclusive, that there may have been a "gasser" at first even though the later spread of the symptoms was an hysterical phenomenon. The "anesthetist" soon became scared and ceased his fiendish activities. We may grant the charm of compromise as a general thing but insist that the above arguments still hold—for the first part of the episode as well as the last. The hypothesis of hysteria fits all the evidence, without remainder.

Quantitative Data on Chronology

If we consider the whole affair as a psychogenic one, as a "mental epidemic" due chiefly to suggestion, the sequence of events takes on a particular significance, and fortunately a more or less objective chronology of the case is furnished by records of telephone calls to the Police Department. In the Mattoon Police Department the desk sergeant regularly records the date and time of all calls and a brief note of the nature of the call and subsequent police action. From these records calls specifically reporting a "gassing" were easily segregated. Another category of calls, usually designated as "prowler calls" by the police, was found to be useful. This designation means that someone phoned and reported that a man was acting strangely on the street, or that noises were heard on the back porch, and that, when the police answered the call, they could find no evidence of any damage or break-in. The records were broken down in this way for the period of the excitement and a few weeks before and after.[4] Figure 1 shows the trends which appear when these data are grouped into weekly intervals.

The "gasser" curve starts from zero, reaches a peak rapidly, and rapidly returns to the baseline, as one would expect. (The decline is actually quite sharp, as noted earlier, though in the figure it appears more gradual than the rise because of the grouping into weekly intervals.) The "prowler" curve rises and falls with the "gasser" curve, a parallel which cannot be merely coincidental. Since the police do not list a call as a "prowler" call if they find evidence of damage or entry, it is likely that these calls result, in many cases at least, from psychological causes operating in a vague or ambiguous perceptual situation. Thus, during a period of great excitement like a manhunt, when anticipation is intense, the number of "prowler" calls would increase. Similarly, as the excitement subsides, the number of such

[3] P Janet, *The Mental State of Hystericals* (New York: G. P. Putnam's Sons, 1901), pp. 376–377.

[4] The writer is very grateful to Sgt. Edward Davidson for carrying out a day-by-day analysis of these records.

calls would subside. The most striking fact is that there were so few "prowler" calls in the last part of September and none whatever in October until just before Hallowe'en. This is very unusual, according to the police, and a check of the records for the same months in 1943 discloses no similar fluctuations. The only plausible explanation is that the lack of "prowler" calls results from the development of contrasuggestibility. After hearing of the "phantom anesthetist" and then of "imagination" and "hysteria," the people who ordinarily would have called the police when they heard a suspicious noise became critical and inhibited their "imagination."

The curve for total calls is similar. Police business in general increased sharply during the "gasser" episode, then declined for a few weeks before coming back to normal.

In the light of the evidence presented thus far it seems proper to speak of a wave of excitement or a "mental epidemic" sweeping through Mattoon. The people who succumbed to the epidemic can be grouped into three classes according to the intensity of their response. In the first class are those who merely put off their evening stroll and locked their windows more carefully than usual. Such conduct would of course be called "sensible" and hardly requires any explanation, but it must be remembered that there were many in Mattoon—perhaps a majority—who completely ignored the incident. In the second class are those who reported to the police that they saw or heard a prowler. A report of this kind indicates a higher level of susceptibility since it means that suggestion enters into and complicates perception. The third class is made up of those who reported physical symptoms from "gassing." The occurrence of the physical symptoms indicates a high degree of suggestibility, on the average at least, and perhaps some constitutional predisposition to physical complaints as well.

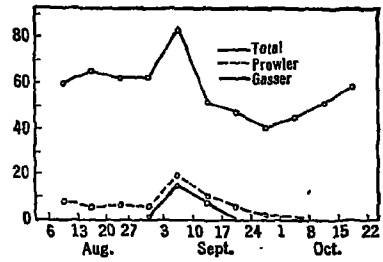


FIG. 1. Analysis of records of telephone calls to the Mattoon police department. Gasser calls begin on September 2, increase rapidly, and decrease rapidly to zero. Prowler calls, which develop out of an unstructured situation, begin in this graph at their average level, rise with the excitement of the gasser episode, and fall to zero as contra-suggestibility develops. Total calls, at the police station begin at the average level, rise with the increase in gasser activities, decline as contra-suggestibility develops, then return to the average level.

AGENCIES OF COMMUNICATION

How was the suggestion carried to all these people so quickly and uniformly? There are three possibilities: direct face-to-face contact between victims, indirect conversation or gossip, and the newspapers. In talking to the victims the investigator attempted to determine when and how each had first heard of the "phantom anesthetist." The replies gave very little evidence of face-to-face contact. With the exception of four cases in which two people lived together and were "attacked" at the same time it seems that the victims were practically unknown to each other. The possibility of indirect contact through neighborhood chatting is a more likely one, and one which is difficult to check. The chief argument against this avenue of communication is that it takes time, and the "epidemic" spread rapidly. The cases were widely scattered throughout the town, and, as we shall see later, only about a third of the victims had telephones.

As a means of communication the newspaper is, of course, the most effec-

tive. According to 1941 figures[5] 97 percent of Mattoon families read the Mattoon *Daily Journal-Gazette* every evening except Sunday. This is the only paper with a large circulation in Mattoon, and obviously it is the source to which most residents would turn for information in a case of this kind. It is necessary, therefore, to examine the *Journal-Gazette's* treatment of the story and to analyze its psychological influence.

The Mattoon *Daily Journal-Gazette*, which usually runs to about eight pages, resembles other small newspapers both in size and in editorial policy. In general its treatment of the news is conservative, and one would expect that its readers have confidence in its reliability. No one would consider it a "sensational" paper. When a headline, "ANESTHETIC PROWLER ON LOOSE," appeared, therefore—as it did Saturday evening, September 2—it was no doubt taken at face value. The story, which ran on the front page in a full column headed "Mrs. (A) and Daughter First Victims," was written as a straightforward news item. Including the headline it covered 47 square inches.[6] In retrospect it makes rather interesting reading. The careful reader's eye is caught particularly by the word "First" in the heading, since only the one case is mentioned. Whether this was an instance of prophetic insight or merely an error is not known, but the word does now, and probably did then, arouse a tingle of anticipation.

On the next two days, Sunday and Labor Day, no paper was printed, but on Tuesday, the fifth, 26 square inches appeared on page six. On the sixth there were 40 square inches, including a headline, on the front page. On the seventh, 29 square inches were used, including a headline, "MAD ANESTHETIST STRIKES AGAIN." No headline was used on the eighth and only 28 square inches of space. Objectively and in terms of newspaper space the excitement seemed to be dying down. But note the first paragraph:

> Mattoon's "mad anesthetist" apparently took a respite from his maniacal forays Thursday night and while many terror stricken people were somewhat relieved they were inclined to hold their breath and wonder when and where he might strike next.

Several attacks were reported that night, and on the evening of the ninth a three-quarter-inch headline was used, crowding the war news to a secondary position. In all, the story took up 51 square inches of space. Evidently the climax is approaching. Up to this point the reader is treated to an absorbing horror story—with a mysterious marauder whose "maniacal forays" increase in a fantastic crescendo, a frightful new scientific device for gassing the victims, and a succession of tantalizing clews. His interest may be aroused to the point where he participates in the manhunt—vicariously, through reading about the scientific investigations of the state crime-detection experts or trying out his own hunches, or actually, by following the police cars or patrolling the streets. In other cases it was not the thrill of the chase which was aroused but apprehension and fear. It was in these people that the hysterical symptoms appeared.

On the eleventh (the tenth was Sunday) the tone of the story changes. Although 62 square inches were given to the story, the headline contained the phrase "few real" and the treatment is critical. No headline was used on the twelfth and the keynote phrase was

[5] Illinois Daily Newspaper Markets. Paul L. Gorham, Leland Bldg., Springfield, Ill.

[6] Measurement of newspaper space, as for our purposes, is not well standardized. In the present analysis the square inch is used, and the figures given include headlines and photographs as well as text. Those who like to think in terms of the column inch can halve these figures and get the length of *a standard two-inch column* which would contain the material.

"hysteria abates"; the story took up 28 square inches. The next evening a comical twist is given to the affair, expanding it to 59 square inches about two false alarms which turned out to be a black cat and a doctor trying to break into his own office after he had forgotten his keys. On the fourteenth the account falls to 19 square inches, and next evening it is put back on page six with only 14 square inches, although a box of 10 square inches appeared on the front page telling how widely the story had been circulated.

The *Journal-Gazette* dropped the affair from this point to the twentieth, when an editorial was printed, apparently in reply to some ribbing by a Decatur paper. The editorial asserted that, although much of the excitement may have been due to hysteria, there really had been some odors in Mattoon—perhaps blown up from Decatur. With this epilogue the drama takes its leave from the columns of the Mattoon *Daily Journal-Gazette.*

Of the out-of-town newspapers the *Chicago Daily Tribune* and the *Chicago Daily News* have the largest circulations in Mattoon, with coverages of 24 percent and 20 percent respectively.[7] The *Tribune* started the story on the sixth with 10 square inches and gave it 20 to 30 square inches each day thereafter until the fifteenth. The editorial viewpoint of the story became skeptical about the twelfth. The *Daily News'* treatment was similar except that it ran photographs and did not question the authenticity of the "anesthetist." These papers have enough circulation in Mattoon to have an important influence but, since they came in late and since their readers read the local paper also, their influence was probably merely one of emphasis and reinforcement.

The *Chicago Herald-American,* though its coverage in Mattoon is only about 5 percent,[8] handled the story most thoroughly and most sensationally. Its text and photographs were often cited to the investigator. It started late—on the eighth—with 41 square inches, including a photograph. The opening paragraphs of the front-page story which appeared on the tenth are worth quoting.

> Groggy as Londoners under protracted aerial blitzing, this town's bewildered citizens reeled today under the repeated attacks of a mad anesthetist who has sprayed a deadly nerve gas into 13 homes and has knocked out 27 victims.
>
> Seventy others dashing to the area in response to the alarm, fell under the influence of the gas last night.
>
> All skepticism has vanished and Mattoon grimly concedes it must fight haphazardly against a demented phantom adversary who has been seen only fleetingly and so far has evaded traps laid by city and state police and posses of townsmen.

By the eleventh the story was up to 71 square inches, including a 1½-inch headline: "STATE HUNTS GAS MADMAN." On the twelfth it was given 95 square inches, with pictures of crying babies on the front page. After that the account becomes somewhat critical but continues to carry hints that the "gasser" may be a woman, or an apeman, and the like. On Sunday, the seventeenth, however, after the other papers had dropped the story, the *Herald-American* printed a long interview with a psychiatrist, Dr. Harold Hulburt, beginning at the top of the front page above the headline, and covering 196 square inches, with several photographs. This article discusses the dynamics of hysteria in general and includes some sympathetic conjectures regarding unconscious motives of Mrs. A. Further articles resulting from the interview with the psychiatrist appeared on the eighteenth and the twentieth. On December 3 *The American Weekly,* a Sunday supplement of the

[7] Illinois Daily Newspaper Markets, *op. cit.*
[8] *Ibid.*

Herald-American, carried a full-page article by Donald Laird entitled "The Manhunt for Mr. Nobody."

The story was carried by the press services and was used or ignored by newspapers throughout the country according to their editorial policies. The *New York Times*, for instance, did not refer to it, while *PM* had 12 square inches on the seventh and 5 on the twelfth. The *Stars & Stripes* (London Edition) carried 7 square inches on the eleventh. Among the weeklies, *Newsweek* for September 18 carried 20 square inches, while *Time* for the same date carried 26. Both of these accounts were skeptical—*Time* was even sarcastic—but neither dared come to any definite conclusions. *Time* elevated the number of cases at the peak from seven to seventeen. *Dispatch*, a weekly of the Persian Gulf Command, gave it 13 square inches on the eighteenth.[9]

Striking evidence of the interest aroused by these accounts comes from the large number of letters and telegrams—estimated at about 300—which were received by Mattoon officials from all over the United States. The writer examined a sample of 30 of these and found half of them more-or-less sensible, though ill-informed, containing suggestions for capturing the "menace." The other half could be judged psychopathic—on the basis of ideas of self-reference, intensity of affect, and the combination of poor judgment with good vocabulary and expression. Paranoid trends were common.

Characteristics of the Susceptible Sample

Thus far in our investigation we have treated the Mattoon affair as a social phenomenon. The next question, and perhaps the most important, concerns the individuals in the affair. Why were some people susceptible while their next-door neighbors were not? Phrased in more workable form the question becomes one of finding differences between the susceptible sample and the rest of the population of Mattoon. The experimental literature on suggestibility and the clinical literature on hysteria offered several attractive hypotheses for check, but the nature of the case put a distinct limitation on the methods which could be used. It was apparent from the first few interviews that the victims, while they would talk about the "gassing," and their symptoms, and similar superficial matters, would not be willing to cooperate in any inquiry directed toward, for example, unconscious motivation. They had been victimized twice: once by the concatenation of factors, environmental and personal, which produced the symptoms, and later by publicity and gossip, which carried the implication that people who have hysterical attacks are more peculiar, or less sincere, than their neighbors. For these reasons the best one could hope for was a description of the sample in respect of a few objective characteristics.

The 1940 Census Reports [10] give data on a number of characteristics of the Mattoon population; getting the same data for our sample would permit a comparison in these respects. Those characteristics were selected which seemed easy to verify and of possible significance for the present problem: age, sex, schooling, economic level, and occupation. Age was estimated and, in doubtful cases, checked by the estimates of acquaintances. To get a picture of the economic level of the sample four conveniences were used as indices: radio, mechanical refrigerator, electricity, and telephone. Percentages for the first three are given in the Census

[9] Radio treatment of the story was not considered important enough to warrant study. There is no radio station at Mattoon, and no one in Mattoon or elsewhere mentioned a radio account to the investigator. In general, radio editors treat these stories conservatively.

[10] U. S. Bureau of the Census, *16th census of the U. S.* (Washington, D. C.: U. S. Govt. Printing Office, 1942).

TABLE 1

THE SAMPLE OF "GASSER" VICTIMS COMPARED WITH THE TOTAL POPULATION OF MATTOON IN RESPECT TO CERTAIN OBJECTIVE CHARACTERISTICS

	Percentage of sample	Percentage of population
Sex		
Women	93	52
Age		
Below 10	0	14
10–19	0	18
20–29	37	17
30–39	16	15
40–49	21	13
50–59	16	10
60–69	10	7
Over 70	0	6
Education		
Grade school only	71	58
Some high school	29	32
Some college	0	10
Indices of Economic Level		
Electricity	80	95
Radio	80	91
Mechanical refrigerator	28	46
Telephone	33	60
Occupational Categories		
Professional and semi-professional	0	7
Proprietors, managers, and officials	16	13
Clerical, sales, and kindred workers	32	21
Craftsmen, foremen, and kindred workers	5	16
Operatives	37	24
Laborers, farm laborers, and farm foremen	10	5
Domestic service workers	0	5
Service workers, except domestic	0	9

Reports. The number of residential telephones in Mattoon was kindly furnished by the manager of the local telephone agency, and the percentage computed in reference to the number of occupied dwelling units given in the Census Reports. The Census Bureau's descriptions of their occupational categories were studied before the interviewing began so that the necessary data could be obtained. For example, the Reports state specifically that railway brakemen are classed as "Operatives" while locomotive engineers and firemen are classed as "Craftsmen, Foremen and Kindred Workers." Furthermore in a small town like Mattoon the variety of jobs is limited and cross-checking is relatively easy. Hence placing the occupations of the sample into the Census Bureau's categories offered less difficulty than might be expected. A woman's occupation was used if she worked, otherwise her husband's. (Only two women had husband

in military service. One of these worked, hence her own occupation was used. In the other case the husband had been inducted only recently, so his civilian occupation was used.) All these data are brought together in Table 1 for comparison with similar data for the total population of Mattoon.

Statistically speaking, the sample is small; the number of cases on which the percentages in Table 1 are based varies from 14 for schooling to 29 for sex. The table includes, however, nearly all the cases in which physical symptoms were reported. The investigator checked police records and newspaper accounts for names and found a few others while interviewing. Two people could not be found at home despite repeated calls. Three had left town. One would not talk to the investigator. Some of the data on these were obtained from acquaintances. Table 1 gives us at least a partial description of the people who were most intensely affected by the excitement.

To begin with, the sample has a much greater proportion of women than the general population of the city. This is in agreement with the laboratory studies on suggestibility [11] and the clinical reports on hysteria.[12] All of the cases have been married but one, who was about twenty years old.

Since children are more suggestible than adults,[13] why were there not more children in the sample? Many children probably did accept the suggestion in the sense that they reported to their parents that they saw the "gasser" or smelled the gas. While the dynamics of symptom-formation are not well understood and may be different in each case, it does seem likely that adults would be more inclined to the withdrawing, incapacitating sort of symptoms which appeared in this "epidemic" than children. In the case reported by Schuler and Parenton [14] among high-school children the symptoms were of a more positive, lively nature.

In education the sample is below the total population. This too might have been predicted from the literature on suggestibility.

From the economic indices it seems clear that the sample is less prosperous than the population at large, at least in respect to these four conveniences. It is noteworthy that no attacks occurred in either of Mattoon's two high-income areas.

Our sample, then, is characterized by low educational and economic level. These two characteristics go together in our culture. In a study similar in some respects to the present study Cantril [15] found that those people who were most strongly influenced by the Orson Welles 1938 broadcast, "War of the Worlds," were likewise of low educational and economic level. No doubt it is education which is more directly related to suggestibility. Cantril found that the better educated were more critical in that they made more and better outside checks on the authenticity of the broadcast and thus were less frequently panicked.

The data on occupation are not clear-cut since the categories used by the Census Bureau were not constructed for studies of this kind. As the number of cases on which good occupational data were available was only 19, the number in some categories was small, and some rearrangement was advisable. The category "Farmers and farm managers" was eliminated as there were none in the sample and less than 1 percent in the

[11] C. Bird, *Social Psychology* (New York: D. Appleton-Century Co., 1940).

[12] A. J. Rosanoff (ed.), *Manual of Psychiatry* (New York: John Wiley & Sons, Inc., 1920); W. S. Sadler, *Theory and Practice of Psychiatry* (St. Louis: The C. V. Mosby Co., 1936).

[13] Bird, *op. cit.*

[14] *Op. cit.*

[15] H. Cantril, *The Invasion from Mars* (Princeton, N. J.: Princeton University Press, 1940).

general population. Professional and semi-professional classes were combined. "Laborers, except farm" was combined with "Farm laborers and farm foremen." The category "Proprietors, managers, and officials" is a broad one which could include a wide variety of people, hence it is of little use to us. The proprietors in our sample were proprietors of small shops and rooming houses.

As it stands Table 1 shows a lack of any professional or semi-professional people, which agrees with the data on educational level. A fairly clear-cut vertical comparison can be made if we consider the craftsmen and foremen as skilled workers, the operatives as semi-skilled, and the laborers as unskilled. The proportion of the sample in these three groups decreases—in comparison with the proportion in the population at large—as the amount of skill increases.

The interviews, one can easily realize, were conducted under rather unfavorable conditions. It was not possible to get any insight into personality makeup of the victims except in a very superficial way. But it was possible usually for the investigator to work in a few general questions about the victim's health. In only fourteen cases was any information obtained in this way, but, of these, eight, or over half, replied with such phrases as "always been nervous," "never sleep much," and "doctoring for nerves." We have no control data for the total population, but the percentage does seem extraordinarily high. The interview data do not go far, but they reinforce the diagnosis of hysteria and show, as far as they go, that, extraordinary as the Mattoon affair may be on the surface, psychologically it follows a familiar pattern.

Conclusions

Analysis of records available at Mattoon together with the results of interviews with most of the victims leads to the conclusion that the case of the "phantom anesthetist" was entirely psychogenic. There is always the possibility of a prowler, of course, and it is quite likely that some sort of gas could be smelled at various times in Mattoon. But these things do not cause paralysis and palpitations. Hysteria does. The hypothesis of a marauder cannot be supported by any verifiable evidence. The hypothesis of hysteria, on the other hand, accounts for all the facts.

What, then, produced this mass hysteria? There are some gaps in the story, to be sure, but a fairly clear picture can now be drawn. Mrs. A had a mild hysterical attack, an event which is not at all uncommon, which is, on the contrary, familiar to most physicians. The crucial point is that her interpretation of her symptoms was rather dramatic—a quick look through any textbook (e.g., footnote 12) will convince any reader that hysterical symptoms usually are dramatic—arousing the interest of the press, with the result that an exciting uncritical story of the case appeared in the evening paper. As the news spread, other people reported similar symptoms, more exciting stories were written, and so the affair snowballed.

But such acute outbursts are necessarily self-limiting. The bizarre details which captured the public imagination at the beginning of the episode became rather ridiculous when studied more leisurely. The drama of the story lost its tang with time and the absurdities showed through. For example, the volatility of the gas, which was such an asset in penetrating physical barriers, became a liability when anyone tried to capture the gas and examine it. The facts seemed to evaporate as rapidly as the agent which produced them. At last the failure of the police and volunteers to find anyone or anything tangible (the best the news photographers could do was to pose women pointing at windows, babies crying, and men holding shotguns) combined with the statements of city officials in the paper produced a more critical

public attitude. The attacks ceased. The critical attitude increased and spread, however; police business struck a new low. It is proper to say that the wave of suggestibility in Mattoon left a wave of contrasuggestibility in its wake. Objective records document this generalization.

Naturally the more suggestible people accepted the story at face value. Of these only a small percentage reported physical symptoms from "gassing," presumably because of some personal motivation toward, or gratification from, such symptoms. As might be predicted from psychological and psychiatric literature, those who succumbed to the "mental epidemic" were mostly women and were, on the average, below the general population in educational and economic level. This supports the above analysis and puts the "phantom anesthetist" of Mattoon, in some aspects at least, into a familiar psychological pattern.

4.

THE FUNERAL OF "SISTER PRESIDENT"

By Joseph H. Douglass

A short time ago, while I was principal of a little backwoods high school and a participant-observer in a small town on the Mississippi Delta, I was caught up in one of the greatest social events ever to befall our little community.

Lo and behold! "Sister President," mother of the church, had died when "she was just getting ready for the annual convention of the missionary society at Jackson." Word-of-mouth reported that she had died one year, one month, and one day later than her husband, "Reverend President," the greatest preacher ever to have circulated in those parts. Rumor had it that a good neighbor upon being informed of Sister President's death immediately fell dead herself.

The stanch church members quickly proceeded with the arrangements for the funeral. Circulars in the form of handbills were printed and distributed throughout the communities of the county, announcing the time of the funeral and the prominent personages to appear on the program. Reverend H— was to officiate, and a prominent singer was to come all the way from Rosedale, a distance of ninety miles, to sing "over" Sister President one of her favorite songs —"Life Is Uncertain, but Death Is Sure."

The day of the funeral finally came. Very few of the persons (if any) went to work that morning and some had driven scores of miles to be present. St. Andrew's Church could not accommodate everyone interested, so as a consequence hundreds of persons were milling around the sides and front of the building.

At about eleven o'clock, shortly after services had begun, the frame walls of the church started to crack under the immense strain of the large numbers within, so someone had the idea of finishing the services at the school.

Shortly I saw great numbers of persons "swarming" over to my institution. Fowls and pigs that heretofore had been walking complacently in the roadway now fluttered, cackled, and bolted in various directions, adding to the confusion. I rushed out to contact the minister or whomever I could to ascertain

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what was happening, but I was immediately pushed aside. Pretty soon I saw a dozen or more persons running with a casket in the direction of the building. Someone finally told me in a wild-eyed fashion that—"the church is fallin' down—dey gonna finish havin' it at the school."

I rushed back indoors to attempt to dismiss the children, but saw them already scampering in all directions. One of my teachers (a refined, quiet, modest little lady, if ever there was one) jumped out of the classroom window. Children were trampled upon and "shooed" out. Some were crying, others were laughing and had gone into the auditorium along with the crowd.

After approximately one half hour, the seats were arranged. Additional benches had been brought over from the church and had been placed around the walls. One of the ministers was complaining miserably about his pocketbook containing one hundred dollars that had been stolen as the crowd rushed from the church to the school.

The services got under way again. Eight or ten ministers were seated on the platform together with the combined church choirs. Seated down front were the members of the various mystic burial orders to which Sister President had belonged. Two groups that I recall were the Knights and Daughters of Tabor, and the members of the Order of the Beautiful Star. The Knights carried in their hands cardboard swords, and the members of the Beautiful Star were dressed in white robes having on their heads paper crowns on which were pasted silver stars. They had all filed in ceremoniously and had been allowed to be seated—the crowd being held back. When they had taken their seats the people rushed in and sat on whatever was available. Some of the persons were sitting two and three to a seat, on one another's laps. Others sat on the window ledges and still others reclined against the walls.

The "rattling" of feet began, and as the ministers delivered their sermons various members of the audience would give shrill screams and fall prostrated. Responsive ushers would place these persons out on the lawn and a relative or friend would burn chicken feathers, placing the fumes to the noses of the victims to revive them. (The feathers had been brought along especially for this purpose.)

The eminent singer from Rosedale, an elderly gentleman, was late in arriving and was unable to force his way through the crowd to the platform. News of his presence finally got to the stage and one of the preachers stated that—"if the good brother from Rosedale will go 'round to the side, we might kin git him in through the window." This he did. He was able to sing Sister President's selection.

Occasionally a choir member would get so enraptured through the rendering of a song that she too would be overcome and would have to be carried outside. The pianist cried sadly throughout the services and from time to time she would look mournfully out to the audience, resting her chin downwards on one shoulder. Some of the persons were not quite "out" when they yelled and resisted attempts to remove them. With wild swinging of the arms and with cries of "unloose me," "unloose me," they struggled against anyone attempting to take hold of them. In instances like these the more muscular ushers would "grapple" with the victims and would secure "arm locks" on them, holding them taut until they were subdued.

Finally, the great Reverend H—, who had reserved last place on the program for himself, gave his sermon. He started off very piously and soberly, talking of Sister President's wonderful spirit, her achievements, and her general love of humanity. With consistent "egging" from the ministers on the platform and

with cries of "come on, come on," Reverend H— too entered into the spirit of the occasion. He snarled, gnashed his teeth (displaying a set of bright yellow gold), gurgled, growled, and gasped, apparently losing control of himself at intervals. Dramatically and with appropriate gestures he likened Sister President to a "great soldier":

> An' standin' therefo' having her loins girt with truth—and havin' on the breas' plate of righteousness. And her feet shod wid the preparation of the gospel of peace—and above all—'bove all—takin' the shield of faith, and the helmet of salvation and the sword of the spirit, which is the word of God.

This last part of the sermon was repeated over and over again for increased emphasis. One lady sang out from the back of the audience in a high shrill soprano voice—"It's early in the evenin'—and my soul is getting tired." Others remarked "Well" and "Lord" at heightened intervals. (Words can scarcely express the tension that pervaded the room.)

The audience "rattled" their feet, clapped their hands and cried out "Amen! Amen!" With much mopping of his brow, Reverend H— (with his coat now hanging partly off) was pulled back to his chair by some of the other ministers, some of whom shook his hands and others of whom patted him on his back. At this time the choir started up a chant of the "Old Ship of Zion." With the first verses being sung, at least a score of persons screamed and cast their arms into the air—"Have mercy, Lord." With each successive verse an increasing number joined in. When they proceeded to the words, "it has landed my dear mother," bedlam broke loose. Some of the people danced if they could find any space, patting themselves on the legs while slipping sidewise, some caressed their neighbors, others slapped someone, and still others were content to just "give out" with piercing yells. This continued for at least twenty minutes, finally coming to an end with grunts and a dwindling of the "rattling" of feet.

The announcement was given that the audience could now "view the remains." As the persons passed the coffin some said "Goodbye, Sister President—I'll be seeing you soon." Others just wept, drying their eyes with one hand, while finishing up a sandwich with the other, as food had been brought along. It was well after three o'clock when the "viewing" was over.

When they attempted to inter the remains of Sister President, several persons had to be withheld from jumping into the grave. One person succeeded and had to be helped out of the excavation.

After the tires that had gone flat were fixed, the mules hitched to the wagons, and the drunken persons "gathered" up, they all made the long trek home to talk for months about the "time" they had had, and to await with patience the next great occasion.

Analysis

The funeral of "Sister President" is here presented because it seems to offer a concrete clinical case by which to test (1) existing classifications of types of crowds, and (2) the alleged principles of crowd behavior frequently found in textbooks. What we want to know is whether the abstractions relating to crowd behavior that fill sociological and psychological discourses do in fact fit an honest-to-goodness crowd, selected more or less at random.

One common distinction in typing crowd behavior is the distinction between *mobs* and *panics*, the former expressing aggression, the latter fear. Clearly, "Sister President's" is neither a mob nor a panic. Rather it represents a ritualistic occasion during which normal audience responses became heightened through a series of circumstances. Aggression and fear, if present, are minor factors.

Another principle of classification has been suggested by Blumer.[1] This author distinguishes the *active* crowd, the *expressive* crowd, the *casual* crowd, and the *conventionalized* crowd. Although this funeral group was energetic and even exultant, it lacked the planfulness and direction of aggression that Blumer ascribes to an *active* crowd. It was not an *expressive* crowd; though much activity occurred, the emotional release was apparently identified with and projected upon an ideal-object—Sister President. She became a symbol typifying the potentialities of the group's members and through her the lowly individual vicariously received status. She became the image of the unconquerable spirit and the great soldier, freed at last from the cultural repressions and frustrations under which each individual in the group labored. To this extent, the behavior, as observed, was more resultant in nature, more symbolic, than abstractedly expressive.

Due to the period of preparation, of expectation, and of build-up, the audience could not under any circumstances be said to comprise a *casual* crowd. Although ritualistic, and in this sense conventional, the occasion goes beyond Blumer's conception of a *conventionalized* crowd because of the appearance of "extra" factors in this collectivity, such as the loss of critical judgment, individual submergence, and the heightened suggestibility of the individual to his fellows.

MacIver suggests the *like-interest* crowd and the *common-interest* crowd.[2] The former is brought together by the curiosity of individuals who happen to be in the vicinity of some occurrence. This type has no common purpose and MacIver asserts that each person could satisfy his curiosity better if he were not incommoded by the presence of others. Clearly, in the case of "Sister President" the individuals of the collectivity shared in the occasion through a definite "will," as well as purpose, and the presence of others was prerequisite to their participation and emotional release. MacIver's second type (i.e., the common-interest crowd), develops out of sudden need—a crisis, a group joy or hatred, a festival, the death of a hero. It may express tumultuous admiration of its heroes but its impulse to action is most likely to find a destructive outlet, he says. The case in point is very similar to this form in origin, but contrary to it in operation as the impulse to action appears to be in the direction of exaltation with tendencies toward destruction absent or very clearly minimized if at all present.

Since "Sister President" does not fit at all comfortably into typological categories, we may wonder with some justification whether these "forms" are empirically helpful. As "ideal" types they may have their uses in directing attention to processes that can be conceptually distinguished. But for empirical use they seem faulty.

Turning to the *principles of crowd behavior*, we find a somewhat more encouraging picture. Certainly the following principles are clearly illustrated.

1. Crowd Behavior Is the Expression of Pre-existing Attitudes. Guests at "Sister President's" funeral came from distant fields and streams where life is both difficult and monotonous. Past experience had shown them that forgetfulness and recreation result from active participation in a group ceremony. They wished to forget their loneliness; they wished to belong; they desired the exaltation that comes from mysterious rites, that bridge the drabness of this world to the glory of the next.

2. Social Facilitation Enhances the Behavior of Each Member: The sights

[1] Herbert Blumer, "Collective behavior." In R. E. Park (ed.), *Outline of the Principles of Sociology* (New York: Barnes and Noble, 1939).

[2] R. M. MacIver. *Society* (New York: Farrar and Rinehart, 1937), pp. 187–191.

and sounds of others moaning, beating time, and praying clearly heightened the volume and intensity of each person's performance.

3. Motor Participation is Essential for Crowd Phenomena. The moving of the services from the church to the school occurred on the spur of the moment. This factor of spontaneity added greatly to the excitement of the occasion, for as the people ran to keep abreast of the proceedings they became more animated physically. This increased activity enhanced the likelihood of the persons' losing control of themselves and giving free physical expression to their emotions.

4. Enhanced Suggestibility Is Evident. In many respects we find the phenomena of enhanced suggestibility. Attention was limited by the energetic speakers, by the casket, by the rhythmic music. Each idea implanted by the speakers and singers fell into the well-worn grooves of thought and feeling. Rationality, critical judgment, individualized thinking, were minimized.

5. A Leader Obtains Identification and Directs the Responses of the Crowd. By long habit the audience readily assumed the attitudes suggested by their preacher. Upon the actions of Reverend H— in particular depended much of the extreme behavior of the group. When he entered into the spirit of the occasion and fanned the flame of excitement by visibly throwing off his own restraints, he gave approbation for any and all exaggerations of behavior. The crescendo resulted.

6. Crowds Fatigue. The "viewing of the remains" and subsequent interment were more in the nature of an anti-climax to the behavior of the crowd. Although feeble attempts were made at revitalization, to all intents and purposes "Sister President" now was dead. It was all over

Although other principles of crowd behavior could be enumerated, it is clear that these that we have cited are among those most commonly mentioned. On the whole, we may say the funeral of "Sister President" can be represented fairly well in terms of these principles.

In brief, the "principles of crowd behavior" would seem to be valid, inasmuch as they do not, when applied violate the uniqueness of the concrete crowd situation. Put to one concrete test the "laws" of crowd behavior hold up well. On the other hand, typing crowds would seem a more hazardous undertaking. The funeral of "Sister President" was a one-time event. To it the laws of crowd behavior apply, but overall categories of classification fail.

XVI

War and Peace

1.

THE PSYCHOLOGISTS' MANIFESTO

The book, *Human Nature and Enduring Peace,* is one expression of the conviction that psychologists can contribute to world order by pooling their training and experience in the formulation of principles which must be reckoned with if peace is to be won.

But there are other such expressions. During the summer of 1944, a group of psychologists addressed to their colleagues —nearly four thousand psychologists scattered throughout the United States—a statement and an appeal in the following form:

July 31, 1944

To American Psychologists:

We have been told by competent advisers that the enclosed "Statement," if signed by a large number of psychologists and if released at the proper time, might have considerable influence on public (and even official) opinion. At the very least it would serve an educational purpose in leading people to think about the conditions essential for a sound peace.

Our plan is to release the Statement at the AAAS and APA meetings in September. Under no circumstances should it be circulated or published prior to that time.

It is not intended as an official statement by any psychological organization, but rather as an expression of the views of a large number of individual American psychologists.

If you are willing to endorse the Statement, please sign and mail the enclosed postal card *at once.*

We recognize that this Statement may not exactly reflect your views on every point; probably there are some items included that you would like to modify or omit, and some omitted that you would like to include.

We hope, however, that you will waive minor differences and endorse the Statement as one with which, in general, you agree.

Although it will not be practicable to make any significant alterations in the Statement, your comments on it will be welcomed, whether or not you are willing to lend your name to it as it stands.

G. W. ALLPORT
R. S. CRUTCHFIELD
H. B. ENGLISH
E. HEIDBREDER
E. R. HILGARD
O. KLINEBERG
R. LIKERT
M. A. MAY
O. H. MOWRER
G. MURPHY
C. C. PRATT
W. S. TAYLOR
E. C. TOLMAN

Human Nature And The Peace: A Statement By Psychologists

Humanity's demand for lasting peace leads us as students of human nature to assert ten pertinent and basic principles which should be considered in planning the peace. Neglect of them may breed new wars, no matter how well-intentioned our political leaders may be.

From Gardner Murphy (ed.), *Human Nature and Enduring Peace* (Boston: Houghton Mifflin Co., 1945. Reprinted by permission of the editor and publisher.

1. War Can Be Avoided: War Is Not Born in Men; It Is Built into Men. No race, nation, or social group is inevitably warlike. The frustrations and conflicting interests which lie at the root of aggressive wars can be reduced and redirected by social engineering. Men can realize their ambitions within the framework of human cooperation and can direct their aggressions against those natural obstacles that thwart them in the attainment of their goals.

2. In Planning for Permanent Peace, the Coming Generation Should Be the Primary Focus of Attention. Children are plastic; they will readily accept symbols of unity and an international way of thinking in which imperialism, prejudice, insecurity, and ignorance are minimized. In appealing to older people, chief stress should be laid upon economic, political, and educational plans that are appropriate to a *new* generation, for older people, as a rule, desire above all else, better conditions and opportunities for their children.

3. Racial, National, and Group Hatreds Can, to a Considerable Degree, Be Controlled. Through education and experience people can learn that their prejudiced ideas about the English, the Russians, the Japanese, Catholics, Jews, Negroes, are misleading or altogether false. They can learn that members of one racial, national, or cultural group are basically similar to those of other groups, and have similar problems, hopes, aspirations, and needs. Prejudice is a matter of attitudes, and attitudes are to a considerable extent a matter of training and information.

4. Condescension toward "Inferior" Groups Destroys Our Chances for a Lasting Peace. The white man must be freed of his concept of the "white man's burden." The English-speaking peoples are only a tenth of the world's population; those of white skin only a third. The great dark-skinned populations of Asia and Africa, which are already moving toward a greater independence in their own affairs, hold the ultimate key to a stable peace. The time has come for a more equal participation of all branches of the human family in a plan for collective security.

5. Liberated and Enemy Peoples Must Participate in Planning Their Own Destiny. Complete outside authority imposed on liberated and enemy peoples without any participation by them will not be accepted and will lead only to further disruptions of the peace. The common people of all countries must not only feel that their political and economic future holds genuine hope for themselves and for their children, but must also feel that they themselves have the responsibility for its achievement.

6. The Confusion of Defeated People Will Call for Clarity and Consistency in the Application of Rewards and Punishments. Reconstruction will not be possible so long as the German and Japanese people are confused as to their status. A clear-cut and easily understood definition of war-guilt is essential. Consistent severity toward those who are judged guilty, and consistent official friendliness toward democratic elements, is a necessary policy.

7. If Properly Administered, Relief and Rehabilitation Can Lead to Self-Reliance and Cooperation; If Improperly, to Resentment and Hatred. Unless liberated people (and enemy people) are given an opportunity to work in a self-respecting manner for the food and relief they receive, they are likely to harbor bitterness and resentment, since our bounty will be regarded by them as unearned charity, dollar imperialism, or bribery. No people can long tolerate such injuries to self-respect.

8. The Root-Desires of the Common People of All Lands Are the Safest Guide to Framing a Peace. Disrespect for the common man is characteristic of fascism and of all forms of tyranny. The man in the street does not claim to understand

the complexities of economics and politics, but he is clear as to the general directions in which he wishes to progress. His will can be studied (by adaptations of the public-opinion poll). His expressed aspirations should even now be a major guide to policy.

9. The Trend of Human Relationships Is toward Ever Wider Units of Collective Security. From the caveman to the twentieth century, human beings have formed larger and larger working and living groups. Families merged into clans, clans into states, and states into nations. The United States are not forty-eight threats to each other's safety; they work together. At the present moment the majority of our people regard the time as ripe for regional and world organization, and believe that the initiative should be taken by the United States of America.

10. Commitments *Now* May Prevent Postwar Apathy and Reaction. Unless binding commitments are made and initial steps taken now, people may have a tendency after the war to turn away from international problems and to become preoccupied once again with narrower interests. This regression to a new postwar provincialism would breed the conditions for a new world war. Now is the time to prevent this backward step, and to assert through binding action that increased unity among the people of the world is the goal we intend to attain.

The response of the psychologists was altogether overwhelming. Of those replying, 99 percent concurred in and signed the statement. And while in peacetime no questionnaire distributed through the mails can expect to receive replies from 50 percent of those addressed, replies were received from about 60 percent of the psychologists addressed. Minor comments and suggestions were received from ninety-two individuals. The text of the manifesto certainly being short of the ideal, the document represents nevertheless the most definite consensus of opinion on a psychological problem which has ever been achieved in relation to any issue at any time.

2.

ANTHROPOLOGICAL RESEARCH AND WORLD PEACE

By Clyde Kluckhohn

If one looks at the record of human events from a perspective which is sufficiently wide in space and sufficiently long in time, there can be no doubt that there are certain broad, over-all developmental trends in history. One of these persistent tendencies is for the size and spatial extent of societies to be ever greater. The anthropologist will hardly question that, eventually, there will be, in some sense, a world society. The sole argument will be over the question, how soon?

To draw the detailed blueprints for the political and economic instruments which might implement a world order is not the province of the anthropologist. Obviously, the sustained collaboration of many economists, political scientists, lawyers, engineers, geographers, other specialists, and practical men of affairs from many lands will be required to devise the machinery with which men might build the world new. But inductions from anthropological data suggest certain basic principles which the social

From L. Bryson, L Finkelstein, and R. M. MacIver (eds.), *Approaches to World Peace; A Symposium* (New York: Conference on Science, Philosophy and Religion, 1944). Reprinted by permission of the author and the publisher.

inventions must meet if they are to be workable. From his experience in studying societies as wholes, from his experience with sharply contrasting peoples and cultures, the anthropologist—along with other social scientists—has proved a few theorems which the statesman and the administrator will disregard at peril to the world.

Under the necessity of being at once student of economics, technology, religion, and esthetics, the anthropologist has perforce learned the intricate interdependence of all segments of a people's life. Although as a jack-of-all trades his work is usually crude, the anthropologist is at least tough-minded about academic abstractions. He knows at first hand the fallacy of the "economic man," the "political man," etc. Because his laboratory is the world of living people at their ordinary daily tasks, the results of the anthropologist are not stated with the statistical refinements of the brass-instrument psychologist, but he perhaps has a more lively sense of the complications arising from an uncontrolled variety of stimuli—as opposed to the selected ones of the laboratory.

For all these reasons, the anthropologist will insist upon the stupidity of any unilinear attack upon the bases for world peace. He will agree that geographical position, natural resources, present degree of industrialization, illiteracy rate and countless other factors are of importance. But he will maintain that an approach which is *purely* geographic or economic is doomed to breed new confusion.

He will suspect that not only some of his fellow specialists but also the general American public will view the problems too exclusively in the light of reason. One of the most abiding traditions of this country is faith in reason. This is a glorious tradition—so long as we do not ludicrously overestimate how much reason can accomplish in a given limited time. When we minutely scrutinize our own behavior, we invariably see how large a proportion of our acts are determined in accord with the logic of the sentiments. If all men everywhere shared precisely the same sentiments, the great role of the nonlogical elements in action might not lead us into great difficulty. But the sentiments of men are determined not only by those great dilemmas which face all humanity but also by the peculiar historical experience, the peculiar problems posed by the varying physical environments of each people.

As a result of the accidents of history, every people not only has a sentiment structure which is to some degree unique but also a more or less coherent body of characteristic presuppositions about the world. This last is really a borderland between reason and feeling. Perhaps in a certain ultimate sense the "logic" of all nations is the same. But their premises are certainly different. And the trouble is that the most critical premises are so often unstated—even by the intellectuals of the group. The very morphology of the various languages inevitably begs far-reaching questions of metaphysics and of value. A language is not merely an instrument for communication and for rousing the emotions. Every language is a device for categorizing experience. The continuum of experience can be sliced very differently. We tend all too easily to assume that the distinctions which Indo-European languages (or our particular language!) force us to make are given by the world of nature. As a matter of fact, comparative linguistics shows very plainly that any speech demands unconscious conceptual selection on the part of its speakers. No human organism can respond to all the kaleidoscopic stimuli which impinge upon it from the external world. What we notice, what we talk about, what we feel as important is in some part a function of our linguistic habits. Because these linguistic habits tend to remain as unquestioned "background phenomena," each people tends

to take its fundamental categories, its unstated basic premises for granted. It is assumed that others will "think the same way," for "it's only human nature." When others face the same body of data but come to different conclusions, it is seldom thought that they might be proceeding from different premises. Rather, it is inferred that they are "stupid" or "illogical" or "obstinate."

And so not only the external facts about a nation (its population density, birth rate, water-power potential, and the like)—important though these are—must be taken into account. Their sentiments and the unconscious assumptions which they characteristically make about the world, are also data which must be discovered and respected. These will all of course be tied in with the religion, esthetic tradition, and other more conscious aspects of the cultural tradition of the people. To understand all these intangibles, and to cope with them in planning, the student must have recourse to history.

Although imbedded in the past, this network of sentiments and assumptions looks to the future. Morale, whether individual or national or international, is largely a structure of expectancies. Persons behave in socially approved ways so long as they have confidence that their needs will be met if they act in accord with their fellows. The nature of expectations is almost as crucial as the situational facts in predicting consequences. In wartime patriotic citizens will undergo major privations with little complaint. In peacetime the same deprivations may lead to riots or widespread social unrest. The external facts are the same but the expectations are different. Much of what happens in the postwar world will depend not upon food shortages, the precise form of newly instituted political arrangements, the rebuilding of factories or other conditions as such, but rather upon the goodness of fit between these conditions and the anticipations of the people in question.

The moral is not merely Bernard Shaw's golden rule: "Do not do unto others as you would have them do unto you—their tastes may be different." This addition must be made to Shaw's aphorism: "The difference in tastes does not necessarily mean either, on the one hand, that you or they must be wrong, nor, on the other, untrammeled cultural relativity. It may be that eventually their tastes and yours will coincide in all matters of moral importance, at least—but not yet." As the anthropologist puzzles the cross-cultural record, he can hardly fail to be struck by the importance of the time factor. Capacity for cultural change, indeed for sharp reversals, on the part of the same biological group seems almost unlimited. Two generations ago missionaries endeavored to get the Navaho Indians to accept the Ghost Dance religion. No converts were made. But today many such nativistic religious movements have taken hold among these Indians. Or contrast the boisterous lewdness of Elizabethan with the prudery of Victorian England! The mistake of many well-meaning social reformers has not always been limited to that of attempting sumptuary legislation. Sometimes the measures have been wise enough for the group intended, but all has been lost through undue haste. "*Festina lente*" is usually a good motto for those who wish to institute or direct social change. Because of the enormous tenacity of nonlogical habits, the attempt to alter them too rapidly commonly intensifies resistance or even produces reaction. Plans for the new world must indeed be vast and bold, but there must be great patience and tireless practicality in carrying them out.

This is a note of caution but not of pessimism. For perhaps the greatest lesson which anthropology can teach is that of the boundless plasticity of what we too glibly call "human nature."

Every culture is a traditionally transmitted set of solutions to highly similar problems which every human group has faced. The exuberant variety of solutions which have been devised to the same problem (say "sex" or "property") is truly amazing and makes one eternally skeptical of any argument couched in the form, "That would never work—it is contrary to human nature." However, some of the more enthusiastic exponents of cultural determinism and of education forget how many generations and indeed millennia have gone into the experiments in human living carried out by various societies. *Homo sapiens* will, under the right conditions, eventually do almost anything—but the time required before a particular result is achieved may be very long indeed.

Is prolonged collaboration between different races possible? Anthropology knows of no definitive evidence to the contrary, and there is some positive evidence in favor of the hypothesis. Certainly there are isolated instances of peaceful and sometimes long-continued cooperation between groups speaking different languages and, less frequently, between groups of forcefully different physical appearance. Nor have these invariably involved superordination-subordination relationships.

On the issue of "race" there is today considerable disagreement among anthropologists. All are agreed that the extravagances of Nazi racial mythology are nonsense. Most are agreed that there is no proof of the "mental" inferiority of any race. Some, however, do feel that the characteristics of any group are to be understood, in part, as the effects of the differential heredity of the one or more races represented in that population.

Personally, I belong to that radical band who feel that the concept "race" has little or no scientific utility.[1] I believe we have been victimized by an analogy. Races or varieties are phenotypes. Among nondomestic animals and among domestic animals which are purebred the relationship between phenotype and genotype is very close. If we know the phenotype we can make useful predictions as to genotype. This is hardly true among humans except, to some degree, as between the three major racial stocks: "white," "black," and "yellow." If a man and a woman whom ten competent physical anthropologists classify as "pure Mediterranean" marry, their ten children may—with no irregularity in the family life!—approach in varying degrees to the Mediterranean or Alpine or other types. As Boas and others have shown, the curves of variation for two family lines within the same "race" may fail to overlap for certain features, whereas one of them may closely approximate that of another family line in a completely different race. Even as between the major "stocks" the genetic significance is not too certain. A leading geneticist has estimated that less than one per cent of the total number of genes is involved in the differentiation between any two existent human races. Another prominent geneticist sees evidence that

[1] Unfortunately, the remark which a distinguished geneticist made in 1931 is still largely true. ". . . Systematic biology in general and physical anthropology in particular have pursued their course with a serenity unimpaired by the results of experimental investigation. This is perhaps because geneticists have courteously refrained from commenting on the devastating consequences of their discoveries." (L. Hogben, *Genetic Principles in Medicine and Social Science*, London, 1931.) For what another leading geneticist thinks of the classical anthropological conception of race, see T. Dobzhansky, *Transactions of The New York Academy of Sciences*, Series II, vol. 4, pp. 115–128, February 1942, Section of Biology, and T. Dobzhansky, "The Race Concept in Biology," *The Scientific Monthly*, February 1941, vol. LII, pp. 161–165. For another critique by an experimental biologist which shows the untenability of many basic assumptions of the classical physical anthropology see William C. Boyd, "Critique of Methods of Classifying Mankind," *American Journal of Physical Anthropology*, vol. XXVII, No. 3, December 1940, pp. 333–364.

the differences between two groups of African Negroes are greater than the difference between one of them and various "white" races.

The differences between "races" which are actually visible and which are both socially recognized and also basic to "scientific" classifications, are such features as skin color, hair form, stature, head shape, and lip form. Some of these we know to be susceptible to environmental pressures of no very great time duration. In any case, there is not a shred of proof that the gene for skin color, for example, is carried on the same chromosome, and hence "linked with," genes which play a part in determining "intelligence" or "moral qualities" or any other traits of social significance. Here is where I believe we tend to make inferences on the basis of false analogies. It is a fact of common experience that the social stimulus value, the "personality," of the poodle *is* different from that of the police dog. The temperament of the Percheron *is* different from that of the Arabian race horse. Hence, we fall into the error of assuming that the qualities of temperament and of intelligence of Negroes must necessarily, *on a biological basis*, be different from those of "whites." It is more than possible that the potentialities for certain temperamental traits are present in different proportions among the various racial stocks. But the point is that we have no scientific proof of this as yet. Certainly we tend to exaggerate whatever biologically determined differences there may be, because of the fact that the two groups tend to have had very different cultural histories and, today, different opportunities.

None of this argument is to be construed as minimizing the importance of physical heredity *in individuals*. But heredity acts only in lines of direct descent. There is no unity of descent in any of the existing races. Therefore—so far as present scientific knowledge goes—the principal importance of the several physical types of mankind is that they do possess features which, for whatever reasons, have a high degree of social visibility. The fact that human beings do react negatively to other human beings who look different is a fact that must not be overlooked. Its significance, unfortunately, is considerable in the problem of collaboration between "races." And we must not be too optimistic as to how quickly "education" can dissipate these prejudices. One of the more remarkable findings of general biology is that of species cohesion.[2] In the wild state, organisms which, we know from observation of specimens in captivity, can interbreed and have fertile offspring commonly do not do so. In nature, more often than not, animals avoid or are actively hostile to similar animals of different odor or appearance. This tendency appears to be so deeply rooted in the organic world that human planners, however much they regret or disapprove such manifestations, must not neglect it.

When the security of individuals or the cohesion of a group is threatened, scapegoats are almost always sought and found. They may be other individuals within the group or they may be an outside group. The first phenomenon may be observed alike in the chicken yard and in any human society. The second phenomenon seems to be the principal psychological basis for modern wars.

The problem of how to minimize and to control aggressive impulses is in many ways the central problem of world peace. The monster is hydra-headed and must be approached from every possible angle. One, though only one, way of preventing wars is to lessen the irritants making for intrasocietal tension. This means, first

[2] Cf. S. Zuckerman, *Functional Affinities of Man, Monkeys, and Apes* (New York: Harcourt, Brace and Co., 1933), pp. 115–118.

of all, assuring a certain minimum of economic well-being and of physical health to all populations in the world. Assuredly, however, the task does not end here. A people can be never so prosperous and yet seething with hostility. Some aggressive impulses appear to have their origin in the traumata of socialization. Some of these are probably needless or are hypertrophied by unwise disciplines, carried out with avoidable brutality. It does seem likely that some frustration and deprivation will be inevitable in the production of responsible adults. But the resultant aggression can perhaps be drained off more effectively than the most human societies have done in the past through socially useful competition, through socially harmless releases for aggression, as in sports.

This question of "what to do about hate satisfaction" will face any type of social order. Certain specific phrasings of the general issue must be met by our postwar world. In our own country there will be felt by many a terrible need to renew our wealth through exploiting other parts of the world. There will be the tremendous dislocations resultant upon the return to a civilian economy. The routines of living which have become established through long war years will not be dissolved without much anxiety (and consequent potential hostility) on the part of large masses of our population. The transition must be as gradual as possible and so managed that the strains felt by countless individuals are kept at as undisturbing a level as possible. Otherwise, we shall be everywhere restoring our equilibrium by finding scapegoats—making victims of our enemies and of the less industrialized peoples, enemies of our allies, martyrs of those in our own midst who do not look or act like "the average American."

Thence could only new violence and confusion come. A world order—political and economic and social—must include all, and not least, our present enemies. When and how Italy and Germany and Japan should become full partners in the policing of the world is, of course, a complicated practical question which cannot be disposed of in a trivial phrase. But unless, from the very start, we make it plain to them and to ourselves that this is the eventual goal that will not be altered, we shall only invite the formation of new compensatory movements in these nations.

The anthropological outlook demands toleration of other ways of life—so long as they do not threaten the world order. But world order cannot and must not mean the reduction of cultural diversity to a gray amphictyony. The paradox of unity in diversity was never so meaningful as today. The Fascists have attempted an escape from "the frightening heterogeneity of the twentieth century" by a return to primitivism—where there is no harassing conflict, no disturbing choice because there is but a single rule and that unquestioned. The democratic solution, and one which receives every support from anthropological science, must be that of orchestrated heterogeneity. One may compare a symphony. There is a plan to the whole and a relation of parts which must be maintained. But this does not mean that the delicious contrast of themes, of tempos, is lost. The first movement is distinct from the fourth. It has its own value and significance—though still its full meaning is dependent upon an orderly and articulated relation to the rest.

The world must be made safe for differences. Knowledge of the problems of others and of alien ways of life must become sufficiently general, so that positive toleration becomes possible. Also necessary to respect for others is a certain minimum of security for oneself. Certain inequalities of opportunity between peoples must be leveled out to some degree, even if at some apparent sacrifice on the part of nations now more fortunate. A secure and happy world

can be built only from secure and happy individuals. The roots of individual and of social disorganization are identical.

Both the external and the more internal aspects of the problem are tremendous. But the great lesson of "culture" (in a technical, anthropological sense) is that the goals toward which men strive and fight and grope are not "given" by biology (though conditioned by the germ plasm and by the needs and limitations of man's biological equipment) nor yet—entirely—by the situation; an equally important determinant is the social climate, and this can be appreciably manipulated and restructured in a surprisingly short time in this narrow contemporary world, if men are wise enough and articulate enough and energetic enough.

When disaster threatens, when experience is simply felt as ever potentially menacing, men may do one of two things *or* both. They may change the situation —the external environment, or they may change themselves. The first path, broadly speaking, is the only one which has been taken to any appreciable extent by western European peoples in recent centuries. The second path, broadly speaking, is the one (and mostly again the only one) which has been taken by Asiatic peoples and by our own American Indians. Neither path, by itself, leads to an equilibrated good life for the majority of men. To act on the unstated premise that either one or the other will save us is the tragic consequence of our habituation to the Aristotelian mode of thought which thinks in terms of mutually exclusive alternatives. *Both* roads are necessary and open. To actualize the Four Freedoms we must have personalities that are able to be free. But no scheme of socialization or formal education which makes for freedom of the personality can guarantee human beings who are free from the need to fear and the need to fight, unless the social and economic structures within which they must find their place as adults make these orientations realistically rewarding.

Man must humbly but with courage accept the responsibility for the destiny of mankind. Any other postulate is a frightened retreat and, in the long run—in terms of the very "drift" of physical and cultural evolution—a retreat which leads to the blank wall or the precipice of chaos unthinkable. Man can understand and control himself as much as he has demonstrably understood and controlled nonorganic nature and domestic animals. This is the great emotional adventure of postwar years, that "rife idea of transcendent might" which must make all forms of exploitation seem commonplace or, rather, vulgar and uninteresting. To this adventure the "study of man" can contribute not only some of the guiding directions, but likewise the techniques for amassing much of the information which is as essential as principle and concept.

Appendix

The following paragraphs, outlining basic statistical concepts, have been prepared to aid the reader who is not thoroughly familiar with the statistical analyses used in this volume They will make it possible for him to read the statistical selections with fair comprehension of their significance, but they cannot substitute for adequate training in the methods of statistical analysis and interpretation They describe concepts, not methods, and they avoid mathematical formulations essential to any practical application of statistics Moreover, they describe mainly the statistical concepts used in this volume, a few others having been added because of their direct relationship to those concepts here used

The statistical terms listed below will be found in the paragraph indicated The words in heavy type throughout the paragraphs indicate the key terms and concepts

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Analysis of variance, 23
Arithmetic mean, 6
Average, 6
Average deviation, 7
Central tendency, 4–6
Coefficient of linear correlation, 12
Correlation, 9–14
Correlation coefficient, 11, 12, 14
Critical ratio, 19, 21
D/σ_d, 19
Degrees of freedom, 19
Dispersion, 4, 7
Distribution, 3
F, 23
Frequency distribution, 3
Goodness of fit, 11
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Kurtosis, 8
Least squares, 10
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Median, 6
Mode, 6
Multiple correlation coefficient, 14
P E, 7
Partial correlation coefficient, 14
Pearson coefficient, 12
Population, 2
Probable error, 7
Probability Distribution, 3
Product-moment correlation coefficient, 12
Q, 9
r, 12, 14
Rank difference correlation coefficient, 12
Rank order correlation coefficient, 12
Range, 7
Regression coefficient, 10
Regression curve, 10
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Reliability coefficient, 13
Sample, 15
Sampling, 15–17
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σ^2, 7
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σ_r, 17
σ_x, 17
Sigma, 7
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Significant difference, 20
Skewness, 8
Spearman coefficient, 12
Standard deviation (S D), 7
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Tetrachoric correlation coefficient, 14
Universe, 2, 15
Variable, 3
Variance, 7, 23
Variance from regression, 11
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